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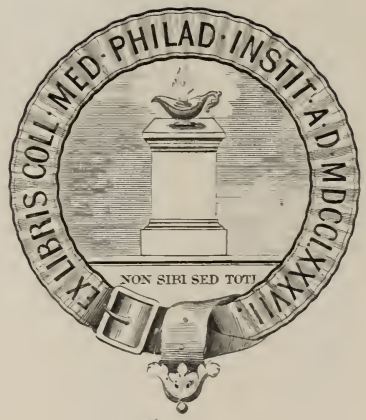
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DANIEL BRAINARD, M. D.,
J. ADAMS ALLEN, M. D.,
Editors and Proprietors.

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ORIGINAL COMMUNICATIONS.

CASE OF STRANGULATED INGUINAL HERNIA

IN WHICH THREE AND A HALF INCHES OF MORTIFIED INTESTINE WERE REMOVED BY EXCISION.

By Dr. H. B. MOORE, of Coldwater, Michigan.

I was called on the 29th August last, to visit Mrs. Sophia Sperbeck, aged about 56, residing about four miles from town. Found her laboring under a Hernia, which for twenty-four hours past she and an assistant had assiduously endeavored to reduce. After an ineffectual attempt by taxis, to replace the tumor, she was put under a full opium treatment.

30th—Have failed to procure a decided narcotic effect from the treatment. Some disposition to vomit; pulse 80, without any febrile excitement, or much local soreness or pain; tumor hard, indicating omentum, though somewhat movable. Continued the treatment, two grains opium every two hours, until full effect should be obtained.

Next morning—31st—Dr. S. S. Cutter visited her in consultation. The patient has rested and feels but little uneasiness, indeed, no urgent symptoms except occasional vomiting. Failing to reduce the tumor by taxis, an operation was propos-

ed, to which she readily assented. Upon carefully exposing and opening the sac, a portion of intestine, four inches over the external surface presented, the coats of which were soft emphysematous, black and fœtid, partially held in situ by adhesions, and containing a hard, impacted mass. Some hesitation now with regard to the best mode of procedure. To reduce the bowel in this condition would be certain death. To institute an artificial discharge would be, if successful, but little preferable. To remove it by excision was agreed on, which was accomplished by raising the intestine and dividing and removing the mortified portion entire down to the mesentery. The opposing ends were now brought together, and secured by four stitches, or interrupted sutures. The intestine was now returned within the abdomen. The external incision brought together and secured, and the patient removed from the lounge comfortably in bed: opiates and an emulsion of turpentine with spare diet constituted the principal subsequent treatment. Untoward symptoms, as vomiting, subsided. On the fifth day after the operation some fecal evacuation occurred, and again, three days thereafter, freely. Soon the bowels resumed their natural action, and now, Oct. 20, she considers herself well, with little disposition to hernial protrusion.

During the operation the patient was unconscious, from the use of chloroform, judiciously administered by Dr. Cutter, who also assisted in the operation.

Upon examining the portion of bowel removed, it was found to contain, besides some fecal matter, three dessert spoonsfull of blackberry seeds, four plum stones, and several fragments of chicken bone from one-fourth to five-eighths of an inch in length. The patient says she was accustomed to swallow her food imperfectly masticated, on account of defective and decayed teeth.

This may be regarded an unusual case, having but few precedents. It demonstrates the practicability of uniting inflamed membranous surfaces thickened by infiltration, between their coats, of abundant plastic lymph.

Although this method of practice may not be sustained by Gross, Miller and Druitt, yet it may be found fully supported by Dorsey and others of the older writers.

Dorsey says, vol. 2, page 56, "When the whole cylinder of the intestine is mortified, the mortified portion should be cut out, and the ends brought in contact and secured by means of four ligatures or sutures, one securing the mesentery and the three others at equal distances round the intestine. In every case, where the intestinal canal is partially destroyed by mortification, it is best to cut out the whole cylinder of the mortified part and not attempt to treat it only as a longitudinal wound, by removing only the portion actually gangrenous. There is a curious difference in the facility with which the longitudinal and transverse wounds of the intestines unite, the transverse heal readily while the longitudinal have a contrary tendency."

In Sam'l Cooper, part 2, page 295, says, "When the whole cylinder of the intestine is mortified the dead part is to be cut away, and the ends of the living are to be brought together and kept so by means of four stitches of fine thread or silk, then a thread is to be introduced through the mesentery. This is the only kind of suture that ought ever to be practiced on mortified intestine."

Charles Bells' Operative Surgery, vol. 1, page 198, recognizes the same practice, and says, "when a portion of intestine is mortified or gangrened, the discharge of the upper part of the canal should be allowed before an attempt is made to unite it by ligature."

In Lawrence, on Ruptures, page 242, etc., it is said, "if the divided bowel be approximated by sutures penetrating all the coats and cut off, a deposition of coagulating lymph unites its edges, and the sutures when loosened fall into the canal or are absorbed."

Many more treatises on Hernia might be quoted favoring the practice adopted in the foregoing case. I regard the opium treatment in this case, as having an important influence, counteracting the tendency to peritoneal inflammation.

NOTES ON

TWO CASES OF "SHOULDER PRESENTATION."

By MORTON M. EATON, M. D., Peoria, Ill.

These cases are reported that encouragement may be given to those who advocate "that the care of a lady in confinement should never be entrusted to any save a well educated physician."

Case 1st.—Was called, March 6, 1862, to visit Mrs. R. I found her in the care of a "female physician," who reported that Mrs. R. had been in labor over two days; that this was her first confinement; that for the first twenty-four hours the labor went on well, then the pains became weak, at which time warm teas were given, which after a time brought on strong pains, and the feminine M. D. thought all was right and promised speedy deliverance; but, much to her amazement, in about three hours she discovered a hand of the child in the vagina. This frightened her. But she had heard of the hands coming by the side of the head sometimes, and so she told the people that the hand had come down, but that this would only delay matters, and that if they would be easy the case would terminate favorably in due time. Mr. R. did wait till his wife had been in labor nearly two days, when he became alarmed and dissatisfied, and proposed to have a *Regular Physician* called, which Mrs. M. D. reluctantly assented to.

On reaching the residence of my new patient, I was met by Mr. R., who appeared much alarmed, and wished me to excuse their having had a Mrs. ———, which he said should be the last time one should enter his house, and told me if possible to save his wife and child, and that any amount I asked should be paid. He being a man of wealth, I scolded a little about his trying to save five dollars by getting a female, and told

him he would lose fifty dollars by it and possibly something worse.

Thinking I had given him a good pill to digest, I entered the house, and learned from Mrs. Dr. that Mrs. R. had not had any pains for five or six hours, and she said I must give something to bring them on again. I told her I would see our patient first, if agreeable. I was accordingly conducted to the sick room. I found Mrs. R. almost pulseless, in a very warm, close room. I ordered the room ventilated, and the face and hands bathed in water and alcohol. Soon after I made a vaginal examination; found the right hand and fore arm of the child external to the mother and the shoulder closely impacted in the pelvis; by auscultation no pulsations of the fœtal part were discovered. I gave my patient, Opii Pulv. gr. ij; Brandy (French) f℥ ss. M.—and sought Mr. R., to whom I stated the facts of the case, and that a resort to artificial means was absolutely necessary; and that I thought the child was already dead from the long-continued pressure to which it had been subjected, but I thought the mother could still be saved. I told him the child should have been turned soon after the waters broke, which I thought would have saved the life of the child and would have been much less dangerous. I told him that turning then seemed almost impossible; but that I would attempt it, and if I failed, instruments would have to be used. I asked him if he wanted any other physician to see his wife, and he said he did not, but wanted I should do just as I thought best. I accordingly proceeded to attempt to turn, which I accomplished by using some patience and perseverance, and delivered the mother of a large, fine, though dead, female child. The mother by close attention recovered well.

I charged an appropriate bill, which was cheerfully and promptly paid; and as they and all their immediate friends have since employed me entirely, I can't complain; still the case was a bad one for *Mrs. M. D.*

Case 2nd.—This was an unusual case on account of the

ease with which I introduced my hand into the vagina and uterus, and the facility with which I corrected the mal-presentation, and shows that we may at times feel that we are of service to the suffering, although often unappreciated.

I was called Dec. 12th to see Mrs. D., in confinement with the fourth child. I learned that she usually had a very easy time. When I made my first vaginal examination of her case I could discover no presentation, although the os uteri was largely dilated. After an hour (during which time she had hard pains, indicating labor in the first stage,) I again examined, and even by passing two fingers into the vagina and reaching as far as possible, nothing of the child could be felt. I examined the uterine globe, and being satisfied a child was there somewhere, I resolved to wait an hour longer and then make a more thorough examination. Accordingly, after waiting, the waters broke, when I prepared my hand and arm and introduced my hand into the vagina, when I was able to reach one shoulder, directly over the centre of the pelvis and the os occipitalis, lying high on the left ilium, and in the absence of a pain I advanced my hand, opened the fingers and seizing the head of the child, much to my own surprise, I brought the head to the superior strait in the second position, and maintained my hold till a pain came on, when I withdrew my hand, and as pains continued good and bearing down I made no further examination for some time, and when I did so I found the head had progressed a little, but seemed to be pressing too much on the left ilium. I pressed it to the right and labor progressed naturally, and I received a large healthy and live girl.

Now, Dec. 17th, both mother and babe are doing nicely. So much for timely interference.

In closing I will acknowledge that when I introduced my hand in the womb I supposed I should have to deliver by the feet, and I was astonished myself that I could bring down the head, (an undertaking that I never before tried, although I have often delivered by the feet for various reasons.) I think that it is seldom that the head could be brought down even if attempted.

RAMBLES IN MILITARY HOSPITALS.

By R. M. LACKEY, M. D.

Some weeks since I visited the military hospital at Camp House, near the city of Pittsburgh, Pa. The building was constructed expressly for hospital purposes, and was a low structure nearly square, with only one large ward, and that poorly ventilated.

I am almost ashamed of my brethren of the profession and my fellow citizens, when I state the condition in which I found that hospital, and the patients in it. In the same ward were wounded men and those sick with fevers and contagious diseases, and in the whole room, intended to accommodate eighty or a hundred patients, there were not more than ten or twelve cots, bedsteads or bunks of any kind. The men were lying on the filthy floor, some with a straw mattrass under them and a part of them with nothing under them but a blanket, nearly all had their dirty clothes on that they came in with; everything was filthy and disordered. I did not make the acquaintance of the Surgeon who had this institution in charge, and I am glad I did not, for I might have been tempted to mention his name to his disadvantage and with no advantage to me or any one else.

There was in this hospital some cases of "sore throat," and one of the assistants informed me, that Chlorate of Potash was *the* remedy.

The military hospitals in Cincinnati, Ohio, are in excellent condition. There are not very extensive hospital accommodations immediately in the city, but at Camp Dennison, fifteen miles out, I am informed there are twelve or fifteen hundred sick and wounded soldiers in hospital.

Louisville, Ky., and the towns in the vicinity of the Falls, boast of more than thirty hospitals. Some of the buildings

used are very well adapted for hospitals, several of the public and school buildings having been appropriated, and the necessary additions made to them. Each of these hospitals is in charge of a Surgeon, who has two or three assistants, most of these surgeons and assistants are private physicians and surgeons, residents of the city, who are employed on contract.

There is but a small proportion of very sick men here. The army is now so far distant, that the sickest men cannot bear transportation to this place, and those who are very seriously wounded cannot be brought here for the same reason, so that it is not until a severe wound is nearly well that you can see it in the hospitals here.

A large number of the cases found in the hospitals here are chronic, and the patients are subjects for discharge from the service. Chronic Diarrhœa, as is usual, predominates over any one disease in the number of its victims, and the surgeons here, as elsewhere, are not decided upon any one course of treatment as the best in all cases. Some say purging and vomiting cure more than any other means they have employed, others say give blue mass and morphine, and others again use Fowler's Solution with success in many cases. Ether and laudanum are given, as many assert, with benefit. One surgeon in New Albany, a very intelligent man, says that his diarrhœa patients all get well in the kitchen. If the patient is able to spend a part of his time in the cooking apartment, this surgeon regards his recovery as almost certain. This remedy should be employed by surgeons, as I am persuaded, that in many cases, it may be the means of restoring patients who have become prostrated by disease, and kept in that weakened condition by constant confinement in the wards of a hospital.

My attention was called to a case of tetanus that occurred in one of the hospitals here, a short time since. It followed a gunshot wound of the foot. The man was put upon large doses of Indian Hemp, (1 gr. three times a day of the solid ext.), and was kept upon this treatment throughout—the case

terminating favorably. The Surgeon, who called my attention to this case, stated that out of five or six similar cases that had occurred in that hospital since it opened, more than a year ago, this was the only one that had terminated favorably, and the only one that had been treated with the hemp.

In Hospital No. 5, I saw two very interesting cases of gunshot wounds. The men were both wounded at Shiloh, on the 7th of April last. I made the following notes on these cases:

Jno. Winter, of 39th Regt. Ind. Vols., was wounded by a Minie ball in the middle third of thigh. The ball passed from within outward, fracturing the femur, and lodged beneath the skin and superficial fascia on the outside of the thigh, it was removed soon after the wound was received by cutting through the skin and fascia. The man showed me the ball, which was such as are shot from the Enfield rifle; the ball was flattened on one side, otherwise it was of its original size and shape.

In some way, this limb escaped amputation, and for some reason the man did not die.

Present condition—His general health tolerably good, has no diarrhœa, appetite is good, and when I saw him he was in good spirits. The limb is much swollen, and has been in that condition ever since he came to this hospital, which was about the 15th of April last.

The wound is discharging considerable pus and some pieces of bone. There is some firmness at the point of fracture; the limb can be moved by the nurse without causing pain, and the patient himself can turn the limb to one side or the other when he wishes to lie on his side. This man is now in much better condition, in every respect, than ever before since the wound was received, and he may get well with a leg somewhat inferior to a wooden one.

Chas. Cridler, of the 15th Regt. U. S. Regulars, was wounded by a Minie ball in the knee-joint, on the 7th of April, at the battle of Shiloh. The ball passed from without inwards, and lodged beneath the skin, on the inner side of the patella.

The ball was removed, but for some unaccountable reason, the limb was not amputated. The man's general condition is not good; he has a poor appetite, bowels are frequently deranged, he has abscesses about the parotid region, that cause great suffering. The limb is painful also, and much swollen. The wound discharges a large amount of unhealthy matter and small pieces of bone. This man refuses to have his limb amputated upon any condition whatever, and in his present reduced condition it would hardly be justifiable. The man may live two or three months yet, and it is contrary to the usual course of such cases that he has lived until this time.

These are the only cases of wounds of this nature I have met with in which amputation was not performed, and the patients have survived the injury so long as these men have. The indications are that the man with the fracture of the thigh will recover with a limb that will be of some use to him. Still I do not regard this case as an argument in favor of conservative surgery, in this class of wounds.

The hospital surgeons in this city, and many other places, have formed "Associations," and meet once a week for mutual improvement. Notes are kept of all cases of unusual interest, and the cases reported at a meeting of the Association. Attention is paid also to the study of pathological anatomy. These meetings of intelligent members of the profession with such ample means of investigation, promise to contribute much to the advancement of military medicine and surgery.

Louisville, Ky., Dec. 2, 1862.

PODOPHYLLIN.

By J. B. HOAG, M. D., Nevada, Ind.

One of the most complete and contemptible farces that has ever been imposed on a credulous community, and one which has already done and is likely to do no little mischief, is that which takes the conspicuous cognomen of "The Reformed

Practice of Medicine." In the first place it had its origin with a complete ignoramus who took the position that all diseases had one origin and one method of cure, and with six articles and combinations, proposed, by the addition of steaming, etc., to be able, by a certain "course of medicine," to cure all diseases. Taking for his basis of reasoning the idea that "heat is life and cold is death," he formed what was termed the "Thompsonian system of medical practice." As absurd and ridiculous as was his theory, and as injurious as the practice necessarily was, it still had its advocates. The writer has a distinct recollection of being once called upon by one of the adherents of this system to administer to the case of his son who was attacked with bilious remitting fever in its worst form. He remarked that no man could practice in his family who bled, blistered or gave calomel. We replied that we could not tell what was indicated until we saw the case. On arriving at the house of our patient we found a high fever and no little delirium. After a careful examination of the case, we remarked: "You can do as you please; employ me or some one else; but if I treat that case I shall use calomel." After pausing a while he replied: "Well, do the best you can." The mother interposed with the objection that she feared that if he took calomel he would be ruined for life. We assured her that she need fear no such result if our directions were followed. We treated the case, and on each subsequent visit found the officious disciple of Thompson was determined to have "a finger in the pie." Not satisfied with having the child literally burning with fever, he had to add a process of cooking in the shape of hot bricks covered with wet cloths placed around the body of the patient. He also urged me to give him, when his fever was at the highest pitch, the strongest preparations of capsicum which I had. I remarked that the arterial circulation was too much excited already and that to give arterial stimulants would probably prove injurious. "Ah, faugh Doctor," he replied, "heat is life and cold is death; raise the heat and there is no danger

of dying." "Well," said I, a little provoked, "I know of no better way to carry out your theory than to place him on the back log of the fire, and unless you cease interfering I will cease to treat the case." He ceased to meddle, except occasional steaming, and the boy recovered, and then he boasted that "*we* cured him;" but I always believed if nature had sunk under his barbarous interference it would have been that calomel doctor killed him.

This system was succeeded by the Eclectic system, but little less absurd, which consists mainly in declaiming against mercurial preparations and mineral poisons, while their substitutes were not less objectionable. It has opened a wide door for quackery, and imposed a set of unqualified pretenders on the community, men destitute of scientific knowledge of medical skill. We conceive, however, that with all the harm that has been done by seeking to overthrow the splendid structure of medical science which has been reared by ages of devotion by the most talented and learned men the world ever saw, and which will ever stand as a lasting monument to their talents and worth, one essential good has been achieved. In their desire to present to the world something new, to be able to boast of something original, the advocates of the so-called reform school of medicine have necessarily been driven to investigations and experiments which have resulted in many valuable additions to the Materia Medica. By this means the medical properties of many vegetables which were heretofore unknown have been discovered and their usefulness tested, and many beneficial medical agents placed in the hands of the medical profession. We apprehend that the work of making additions to the Materia Medica from the vegetable kingdom is far from being completed yet, but that the time is not far distant when many of the plants that strew our earth, which are now disregarded, will take their places with the list of remedial agents and be numbered among the most valuable which the medical profession are in possession of.

Previous to the rise of the Eclectics the Podophylum Pel-

tatum was rarely used as a medicine. The quantity required for a dose, in order to have any effect, was an objection to its use; but since chemists have extracted the *resinous* principle from the plant it is much more generally used.

The pretentions of the Eclectic fraternity, that it is a substitute for and capable of taking the place of mercurial preparations, is all folly. Yet it has its uses, and if properly prepared and correctly used may prove a valuable remedial agent in the hands of the skillful practitioner. For the last seven years we have made a somewhat extensive use of it and have tested its nature thoroughly, and hesitate not to say that in many complaints it is truly valuable. It seems to be peculiarly adapted to cleansing the intestinal tube of vitiated matter, with which it frequently becomes overcharged and loaded, especially in localities which are subject to bilious diseases, and all diseases which accompany torpidity of the liver. The fact that it sometimes produces nausea and even vomiting, is urged by some as an objection; but we have found this to be the case only when the "stomach was foul" and the system generally deranged by the presence of a large amount of vitiated matter.

We certainly know of no medicine which will so effectually clean and clear out the mucous membrane of the intestinal tube, as proper doses of Podophyllin properly combined with other medicines. In order to arouse the liver and at the same time clear out the system, we have found it beneficial to combine it with Blue Mass. The following is an excellent formula: ℞—Blue Mass ʒjj; Podophyllin ʒjj; Carb. Soda ʒj; Pulv. Capsicum grs. x vel Fluid Ext. Capsicum gtts. v. M—Ft pill No. 40. One or two to be given every two hours until it operates, and it is well to continue as long as the passages present a bad appearance, if the strength of the system will permit. The capsicum prevents its having any unpleasant effect by griping.

Another excellent formula for the same purpose is the following: ℞—Calomel ϑj; Podophyllin grs. jjj; Leptandrin

grs. x; Carb. Soda ʒj; Capsicum grs. v. M—Ft chart No. 3. One to be given every four hours till it operates sufficiently. Or this: ℞—Hydrarg Cum Creta ʒjj; Carb. Soda ʒj; Podophyllin grs. v; Leptandrin grs. xjj; Capsicum grs. v. M—Ft chart No. 4. Given as above.

I cannot but recommend it to the favorable consideration of those practitioners who have never tried it.

OLD THINGS BECOME NEW.

Messrs. Editors:—In a recent No. of the London *Lancet*, under the head of *New* Remedies, you will find a notice of Gelseminum Sempervirens or Yellow Jasmine, with the following *very flattering compliment to American Physicians:* "Amongst these (that is new American remedies), there are several deserving the attention and careful experiment of English practitioners. As we have remarked already, we *cannot attach the same importance to the testimony of American physicians*, to the remedial properties of these drugs as we do to that offered by practitioners at home." Passing by the story of the Mississippi planter and the wonders of Eclecticism, we may refer the editors of said *Lancet* to the writings of one Charles Linnæus, of Sweden, who published a systematic treatise on *Materia Medica* in 1749, and two years later, his *Philosophia Botanica*, wherein is described the veritable Galseminum (at that time) Officinale, or Yellow Jasmine, with its properties. Before the close of the eighteenth century it was nearly abandoned. Motherby says of it: "it is sufficiently known not to need a description, the flowers now only are in use, and they to perfume insipid expressed oils.

VERBASCUM THAPSUS.

This will be found well described by one Pedacius Dioscorides, in his *Flora Græcæ Prodr.*, Lib. IV, Cap. 104, as *Phlomos leuki e arren*, who is believed to have written and practised in the reign of one Nero, and for sixteen hundred

years was regarded as the first authority in *Materia Medica.* The properties claimed for it, as new, seem to have been known about nineteen hundred years. P. J. Berjius speaks of its narcotic property in his *Materia Medica e Regno Vegetabile*, published in Stockholm, 1778, and those desiring to, will find it prescribed in the writings of the ancients in pulmonary affections, as a narcotic and demulcent, with an ever varying reputation, also used as an emollient.

Are not our astute transatlantic brethren of the London *Lancet* making wonderful progress in introducing new remedies.

JONATHAN W. BROOKS.

Chicago, Illinois, Jan. 16, 1863.

SELECTED.

DR. GREEDS, OF GRIEFSWALD, ON THE ORIGIN OF PSYCHICAL DISEASES.

TRANSLATED FROM THE ALLGEMEINE ZEITUNG FOR PSYCHIATRIE, BY A. O. KELLOGG, M. D.

Up to the present time, men have been shy of attempting to interpret psychical processes upon physiological principles; yet it does not seem consistent to explain the mental activity by its analogy to other nerve-phenomena. For all life-activities (*labensthatigkeiten*) there is a structure in the central organ of the nervous system, which, as it were, stands bound to the peripheral parts of the body by guiding threads, partly to receive impressions from the outer world, and partly to interpose in the functions and emotions of the parts impressed. For motion, sensation, and mental activity, as well as for the vegetative functions, anatomical provision has already been pointed out; there are groups of cells, which, receiving impressions through the nerve-fibres, give forth their activities; distinctly formed cells have been found for individual functions (Shroeder von der Kolk:) not only the sensory are shown to be distinct from the motory by size and figure, but also,

every sensory nerve has its particularly formed and regularly ordered ganglion-cells, from which it springs.

For the psychical functions, up to this time, we have not been able to find any distinctly marked anatomical paths. That such *exist*, however, we are forced to believe, and, indeed, it is not to be doubted, that the source of mental activity is in these, and that through them it is continually renewed and supplied.

Our knowledge of the minute structure of the brain extends to the roots of the sensory nerves. Why may we not be able to find in the remaining labyrinth of cells and connecting nerve fibres, which are either directly or indirectly in connection with the granules of the sensory nerves, the *laboratory of thought?* Already individual nerve-fibres are pointed out (Schroeder von der Kolk,) running between groups of cells, and which absolutely excite the peculiar activities of these. Wherefore should there not be also such conductors of the will for the separate cell-groups, which may serve as an anatomical basis for this or that circle of conceptions? Whether such will ever be demonstrated is indeed a question, but to accept the fact of their existence is, no doubt, justifiable. We shall be able to determine the anatomical traces of thought, when we shall have been able to find cells especially formed for the production of conceptions. That these lay on the outer surface of the brain, we are led to conclude from the fact, that disturbance of the regular course of thought is the usual result of inflammation of the membranes of the brain, and, in mental diseases, the stratum of cells on the outer surface of the hemispheres, as well as the ventricles, has been found degenerated.

The nervous activity in the new-born first manifests itself in the vegetative functions, motion, and feeling. Then the nerves of sense take up impressions, yet all is dark and unarranged, and the motions are to be regarded as phenomena of reflex action. Through these unconscious perceptions, through the operation of the outer world upon the organism, through the constant change of what is received, and the springing up of functions, there is gradually developed a distinct state of feeling, which has been designated as self-consciousness, common feeling, (*gemeingefhul.*) Upon the fortunate or unfortunate procedure of these functions, hangs, most significantly, the dispositions of men, which, by this dependence can be made very diversified. Indeed, from the manner, and according to the constant or changing development of these dispositions,

the *temperaments* have been distinguished, which naturally are never the same in each individual man. With every self-conscious individual there is now formed, through physical dispositions, (desire and aversion,) and spiritual influences, (joy and sorrow,) a peculiar life-sensibility, (*gefuhlslaben*,) which we are commonly accustomed to denote as mind, soul, (*gemuth.*) Impressions are imparted to the brain through the nerves of sense, which reflect the condition of the outer world. Through repetition of such impressions, there is also created, without the co-operation of the organs of sense, but through the central activity, conceptions, which are diversified according to the diversities of the mind. Next, the child has only sensual conceptions. With the further development of the central organs, a higher order of ideas is formed,—ideas formed from the organs of sense, and the comparison of these, one with another. Most material is furnished by the organ of vision. This gives the conceptions of size, space, color, etc. The sense of hearing gives those of tone, noise, stillness, etc., and so every sense furnishes its distinct abstract ideas, which, by comparison and co-operation, furnish the complex operation of thinking. The faculty to operate with such thought-material is called *intellect*, understanding, (*verstand.*) Now, as the child passes by degrees from simple reflex movements to absolute capacities of emotion, there is also developed, as it were, out of the materials of conception, and under the influence of life-sensibility, (*gefuhlslaben*,) an organism for thought, which, by suitable education. can be perfected to a marvellous degree of fineness. This thought-organism now constitutes the spiritual being (*wasin*) of the man, his *soul* (*seele*,) his *I*, set free by the first approaches of self-consciousness at birth.

Glancing back at what has now been said, it is clear that the mental activity fashions (*auf baut*) the soul, and that the saying of Aristotle, "*nihil est in intellectu, quod non prius erat in sensu*," is undoubtedly true.

For an opposing or regulating force to the motory apparatus, there is a central function given, the will, which is also of influence in the excitation of pure central activity to the production of a succession of ideas; even as the will, by means of a single filament proceeding from the brain, can call into activity ganglion groups in the spinal cord, with the complex periphery of muscular nerves proceeding from it, so, apparently, can it .call into activity groups of ganglion-cells in the brain, and excite them to the production of conceptions.

The similarity between these ganglion-cells and those of the electrical organs of certain fish, justifies the assumption that there is also a force generated in them, which calls forth the life-phenomena of the organism. If this apparatus is similarly charged, perhaps the condition may be designated as central expansion.

The signal of such central expansion is given, commonly, through the influence of the will; a more dark, unconscious sign of the same is designated as *impulse*, and with more complex functions as *instinct*. In vegetative life this unconscious discharge is a rudimentary principle.

Diseases of motility, as well as of sensibility, arise partly through faulty burdening of the central apparatus, and partly through obstructions in the regulating or conducting power, and thus we see, on the one side, spasm and paralysis, and on the other, pain and diversified disturbances of feeling. A similar condition is, indeed, apparent in mental diseases.

The causes of all mental diseases can doubtless be traced back to faulty burdening, or faults in the conducting or directing power of the nervous apparatus.

That the condition of the cerebro-spinal and vegetative systems are often co-operative, is shown by the circumstance that their roots generally run so near in connection that they cannot well escape common influences. Thus, some mental diseases begin with disturbances of feeling. The impressions of the outer world are either unperceived or falsely perceptible. The patient feels his members useless, or as if made of glass, or of wood; in his bowels he feels a creeping thing, muscular and common feeling is changed, and mental disturbances arise. These changed conditions of feeling are wont to precede melancholia, which, indeed, may not inappropriately be designated as cerebral paræsthesia. The abnormal sensations are falsely interpreted. The patient mistakes himself. Feelings of displeasure press heavily upon him; his will does not re-act, and we perceive with the approaching evil complete abulie, *melancholia attonita*, and catalepsy arising. I believe that all these conditions, with perhaps a healthy state of the conducting powers, may be traced back to defective burdening of the central apparatus. Melancholia contrasts strongly in every point with mania. Here we have elevated consciousness, happy disposition, irresistible and pressing conceptions, and muscular actions. The will no longer controls the impulsive explosion of the storms of emotion. In short, if the comparison will be allowed, a maniac gives the idea of a spark

flying to a highly charged apparatus, lighting up, as it were, in it an involuntary discharge. Yet all these fluctuations of feeling, these anomalies of disposition, these pressing emotions, are not accustomed to continue long. The patient becomes composed, the effects disappear, he judges dispassionately, though often not less perversely, as to his condition. From this spiritual dejection (*gemuthskrankheit*) there results intellectual disease (*verstandeskrankheit :*) the secondary form is fashioned from the primary.

The melancholiac who has been driven to and fro by spiritual emotions, depends no more upon his former imaginations, loses by degrees all remembrance of them, forsakes forever his odd fancies, all their rule over his conceptions is lost, his thoughts no longer turn to the significance of abnormal sensations, self-consciousness disappears more and more, the old *I* crumbles under the storm of changed feelings, and there now only remains a planless entanglement of various kinds of spontaneous, self-engendered conceptions, without cohesion, and wholly undirected by the powers of the will; and from the melancholiac results the madman (*verruckter.*)

With raving madness (*tobsuchtingen*) things are fashioned quite differently. With elevated self-consciousness he believes himself foreordained, immensely rich, king, pope, etc. All his conceptions stand in relation to this circle of ideas; his augmented feelings of power deceive him as to the truth of this. So by degrees the old *I* is lost in the background, and from these fresh and complex conceptions, a new *I* is fashioned. The raving (*tobsuchtigen*) becomes the deluded (*wahn sinnigen*) maniac.

If the mental disease ends in complete weakness of all the bodily and mental functions, we have the form of dementia (*Blodsinn.*)

The course of insanity, when accompanied with rapid extinction of all nervous activity, furnishes the form known as paralysis.

Let us now seek a physiological explanation of the conditions just described.

It is an old and recognized physiological position, that the influences of the outer world are only our own perceptions (sensations, *empfindungen.*) If now, with an incipient melancholiac, the intellectual centres perform their functions otherwise than they have been accustomed to—if he finds his limbs, or his intestines otherwise than what they have been—if he hears voices, or sees figures in the outer world which

have no corresponding cause, he is led astry, and these come in contradiction with all his former experience. The explanation of these abnormal appearances falls upon another group of conceptions; the old will be neglected and a new series of cells set in motion, which the psychical act of explanation of these abnormal appearances interposes. The fluctuation in the state of the feelings causes likewise certain cell-groups to be called into requisition in such rapid alternation that the circle of cells which corresponds to them is particularly liable to be impinged upon by every trifling psychical irritation, and, like what we see in the motor department in St. Vitus' dance, the circle of conceptions is spasmodically and involuntarily loaded, so that the patient can no longer direct an ordinary course of thought by means of the will, and the spontaneous discharge from the group of conceptions is more or less given up. So by degrees every thing which capacity and education has previously built up in him is lost. The old paths, with cell-groups for distinct trains of ideas, obedient to the mandates of the will, become forsaken, obliterated as it were, and the spontaneous but irregular functions take new ones, and their activity furnishes anew the whole contents of the man. So that in place of a regular train of thought following the mandates of the will, there has arisen a dark, confused, spontaneous, self-engendered circle of conceptions.

If these new and faulty paths can once more be forsaken, and the authority of the will over the old group of conceptions be again established, then is the patient cured. On the other hand, if the old paths become impassable, an incurable madman is the image of this inner ideal disorder.

The equivalent of this in the motor department may perhaps be *paralysis agitans*.

If an incipient maniac, animated by feelings of the highest prosperity and inexhaustible power, is constrained to develope his might and accomplish great things, he soon becomes deluded as to his *personality*. The train of ideas which was accustomed to guide his own personality is lost, and a new path is struck out, which permits him to appear as King, Pope, Christ, etc. All imagination is drawn about this circle of ideas, and as his former personality was the result of early education, so the frequent impinging upon a new group of conceptions begets in him a new personality.

If now, there occurs in the course of the time, a tranquil rest to the heavy laden nervous apparatus, the group of cells which represents the old personality again comes into activity,

and the patient is cured; but if these have now become impassable, then the complexity of cells which represents the new personality continue in function, and we have before us an incurable misconceited madman (*wahnsinnigen*,) who continually cultivates new and similar conceptions, that help to strengthen the new *I* (*Ich.*)

If, moreover, after the occurrence of irritation or inflammation, nothing transpires sufficient to arouse the cell-groups to renewed and healthy activity, and the patient becomes impassable, the power to form conceptions is either entirely lost, or becomes in the highest degree circumscribed. Commonly the cell-groups which correspond to the will are partially obliterated, so that ideal and emotional activity appear very imperfect. We have now before us the image of an imbecile (*blodsinnigen*—demented,) but one whose life, with sound vegetative activity, can long be preserved.

With a sudden breaking down of all cells affected by disease, we see the powers of emotion and conception rapidly vanish. This is the kind which usually suspends the nutritive changes in the peripheral organs, and precedes the rapid wasting away to speedy death. After conditions of exaltation, this is the usual end of the so much dreaded *paralysis.*

Now in conclusion, touching the development of the mental faculties in man, I believe that all the functions performed in the brain exist to this end, and only need education to be brought out. Even as the olivary, which may be regarded as an accessory ganglion of the hypoglossal granules, is far more remarkably developed in man than in animals, in whom the tongue performs very subordinate functions, even so we may suppose that with individual men, the granules of this or that sensory nerve, or the cells of this or that group of conceptions, may receive a correspondingly strong development. Education has now the task to discover the innate abundance or deficiency, and proceed according to this diagnosis to exercise more particularly the sparsely furnished cell-material, in comparison with that more abundantly bestowed in order to build up such a personality as may be developed from the material stock originally bestowed.

Every thing which excites the nervous system, or disturbs the circulation, furnishes a predisposition to mental disease. Whether this is brought about by psychical or mechanical causes, the effect is the same. It is by means of alterations in the preparation of the blood, and the irregularity of the nutritive changes in the brain-cells, that the anomalies of psychical functions are brought about.

That this is really the case, is shown by the transient condition of typhus, intoxication and narcotism, in which a transient insanity may be artificially engendered.

I will only remark, in conclusion, that those qualities of humanity, the divine nature of which can not be supposed to possess any inherent material, must remain comprehensively untouched by any physiological deductions.—*Jour. of Insanity.*

NOTE ON CUMULATIVE ACTION OF MEDICINES.

By ALEXANDER FLEMING, M. D., Fellow of the Royal College of Physicians, London, &c.

In my lectures on therapeutics, I have found it useful to the student to describe three modes of exhibiting medicines, in relation to the interval between the doses: the *simple*, where the second dose is not given until the action of the first has completely subsided; the *sustained*, where the doses are repeated at such intervals as to keep up without increase or diminution the required degree of physiological action, as in the use of wine; and, thirdly, the *cumulative.*

Although the term cumulative action is much used, it is often wrongly applied, and its meaning is, at all times, vague and uncertain. It is commonly employed to denote the exhibition of a medicine for some days, in small and repeated doses, without marked effect, when suddenly and unexpectedly violent, and, it may be, dangerous symptoms of its action are developed. The successive doses are supposed to remain in some obscure and unexplained way quiescent in the blood, until the so-called cumulative action is manifested. The administration of digitalis and strychnia are cited as affording examples. It is said that digitalis may be given continuously for several days, and apparently without effect, when suddenly a feeble, irregular pulse, fainting and cold sweats, usher in the poisonous action of the drug. In like manner, successive pills of strychnia may be taken and remain inert, when unexpectedly and suddenly severe tetanic symptoms supervene.

Now the sudden eruption of alarming symptoms during the continuous use of these medicines can be satisfactorily explained without reference to any mysterious agency. In the case of strychnia there is no cumulative action, but simply an example of the nonsolution and retention of the medicine in the

stomach and bowels. It is observed only when the medicine is given in pill. This alkaloid is hard of solution in the gastric fluid, and one, two, three, or more pills are apt to remain undissolved and accumulate in the stomach or bowels. Suddenly, from some change in the patient, there is an abundant flow of gastric juice, and all the pills are simultaneously rendered soluble and active. This apparent cumulation of strychnia is never observed when it is given in solution. In the exhibition of digitalis, on the contrary, as I shall presently explain, we have an example of true cumulative action but imperfectly observed and understood.

I think it would be more correct to restrict the term *cumulation*, or *cumulative action*, to denote exclusively the gradual increase of physiological action from the successive exhibition of equal doses. When a second dose is given before the effects of the first have passed away, we add to what remains of the action of the first the full operation of the second, and so on with the third and subsequent doses until, finally, the sum of effects exceeds the limits of medicinal, and passes into those of poisonous, action.

In the exhibition of mercury, arsenic, aconite, digitalis, and other medicines, we adopt the cumulative mode, because it is safer and more efficient. The tolerance of these medicines varies so much that no physician can say what amount of any one of them is required to produce a given degree of physiological action. He might exceed the proper dose and cause danger. But by the cumulative addition of the effects of successive doses in the manner described, we advance cautiously and safely to the required degree of action, and the symptoms are more under control. The interval between the doses is determined in each medicine by the duration of its action. Between successive doses of mercury it may be twelve or even twenty-four hours, while, to secure the cumulative action of digitalis, it should not exceed four to eight hours. Our knowledge here is imperfect in respect to many drugs, and cannot be reduced to rules.

The cumulative mode of exhibition is most necessary with sedatives, as aconite and digitalis; and in using them the pulse must be carefully observed, for it is an important fact, in connection with sedation, that the circulation may be lowered to a remarkable degree without the patient being conscious of, or showing any material change in his other functions. But carry the depression just a little further, and the heart's action is suddenly and seriously embarrassed, and the patient

has fainting, cold sweats, and the sense of impending dissolution. Now, the early effects on the pulse of the cumulative depression of digitalis are apt to be overlooked, and the belief obtains, as already stated, that the first doses produce no effect whatever; but this is an error. I have often watched the cumulative use both of digitalis and of aconite, and have never failed to detect depression of the circulation from the early doses, and its subsequent gradual increase. I should add that, as a sedative, I am careful to give digitalis so as to secure its prompt and easy absorption, and to avoid its local irritant effect on the stomach, which complicates the general symptoms of the medicine.

On the other hand, in the administration of atropia and strychnia it is no less important to avoid cumulation. Their use often extends over a considerable time, and it is safer to use the *simple* mode of exhibition, and to give the doses at such intervals that the action of the first has entirely subsided before the second is taken. Nor is there any danger with these drugs in inducing the required degree of medicinal action with one dose, provided its amount be determined by careful trials, commencing with small and advancing gradually to larger doses. For example, I give atropia thus,—10 minims (containing 1-60 of a grain) of a solution are exhibited once daily, and the dose is increased daily by 2 or 4 minims until I obtain the required degree of atropism. The action of one dose endures sixteen or eighteen hours, but ceases before the next is given and there is no cumulation, which it is safer to avoid, especially as the use of atropia is often continued for several weeks.

There is another order of physiological effects, sometimes named cumulative, which require notice here. They have been observed to follow the use of alcohol and aconite. I refer to the wakefulness, tremor, and exhaustion (delirium tremens), from prolonged excess, symptoms quite different from the ordinary stimulant and narcotic action of spirit, but distinctly traceable to its *continued use.* In the same manner, I have observed in patients who have been taking aconite in full doses for a lengthened period, that ultimately they have become affected with general tremors, severe pain in the head and eyeballs, constant lachrymation, intense photophobia, heat of skin, quick pulse and great restlessness, symptoms which, while very different from the ordinary sedative action of aconite, were clearly attributable to its long-continued employment. In the cases where I noticed these results, the aconite

being discontinued, the symptoms, which were by no means alarming, subsided in a day or two. Effects allied in nature to this action have also been traced to tobacco and to mercury.

In my lectures, to prevent the student confounding these effects with cumulation, I found it needful to distinguish them by the name of *sequel* action. At present, the study of the sequel action of medicines does not offer much interest in the way of practical application; but it might at a future time acquire more importance. For example, one of the patients who exhibited the sequel action of aconite had been long a confirmed intermittent drunkard. From the time that he presented these symptoms the craving for spirit, previously so irresistible, never returned, and he continued to lead a sober life for at least four years while I knew him. Meantime it is well not to confound together things essentially distinct. The sequel action is due to the continued exhibition, and is a direct operation of the medicine, and must not itself be confounded with the symptoms which arise from the sudden suspension of a drug, such, for example, as opium, to which the body has become habituated. The extreme nervous prostration and excessive perspiration, urination and diarrhœa, which supervene on the sudden withdrawal of the habitual supply of this narcotic, are a good example of one of the forms of medicinal *reaction*. The cumulative and sequel actions are both phenomena of the forward, the reaction of the backward, swing of the physiological pendulum.

In relation to strychnia, I have already referred to the error of confounding true cumulative action with the accumulation of medicine in the bowels. This evil happens with solid medicines, as caustic magnesia, strychnia, and calomel, which require the intervention of the gastro-intestinal secretions for their solution and absorption. If the dose exceed the solvent power of the fluids, or these are deficient in quantity, then a portion of all the medicine remains undissolved, and is either expelled quickly by stool or lodges for a time in the bowels. If, while there, the visceral fluids become more abundant, it may be suddenly dissolved and by its absorption give rise to severe effects. I could cite many examples of this, but I have said enough to make evident the distinction between cumulation and the effects produced by the sudden solution and activity of a solid drug which has accumulated in the bowels.—*Boston Medical Journal.*

PREGNANCY:

ITS INFLUENCE ON THE DEVELOPMENT AND PROGRESS OF PULMONARY TUBERCULOSIS.

By A. P. DUTCHER, M. D., Enon Valley, Pennsylvania.

This is a question of commanding interest. From our reading and acquaintance with physicians, we are satisfied that it has never received that attention which its importance demands. Medical writers are quite at variance in their opinions on the subject. The greatest confusion prevails on every print connected with it; and from our studies, we have found it impossible to harmonize the different and conflicting opinions expressed with the facts which preside in the case. This will appear quite evident, if I call your attention for a few moments to some of these opinions as they stand recorded on the pages of our most prominent medical authors. For brevity, we will not take you back farther than the last edition of Morton's *Illustrated Pulmonary Consumption*, published in 1839.

On page 206, he says: "The duration of phthisis is greatly modified by the peculiar functions of the female constitution. During the period of pregnancy the morbid action is suspended in the lungs, while all the resources of the system are devoted to the uterine functions. Lactation produces in degree the same effect; and it is thus that child-bearing women, although decidedly consumptive, enjoy a state of comparative health for many years; but the disease is only latent, and prone to recur with fatal violence when this check is removed."

Dr. Montgomery, in his work, *Signs of Pregnancy*, when speaking of the sanitary influence of pregnancy upon co-existing disease, says (p. 25): Indeed, I think we have sufficient evidence to justify the belief that pregnancy acts in a good degree as a protection against the reception of disease, and apparently on the common principle, that during the continuance of any one very active operation in the system, it is less to be invaded or acted upon by another; thus it has been observed that during epidemics of different kinds, a much smaller portion of pregnant women have been attacked than others; and when women have been laboring under certain forms of disease, happen to conceive, the morbid affection

previously existing is greatly mitigated or suspended for the time, as has been frequently observed in phthisis."

Dr. Edward Warren, in his *Fisk Fund Prize Essay*, on the influence of pregnancy in developing pulmonary tuberculosis, published in the *American Journal of the Medical Sciences*, for July, 1857, contends, with much ingenuity and no little learning, that pregnancy is antagonistic to the development of pulmonary tuberculosis, and that when it occurs during the progress of the disease, it is opposed to the continuation of the tubercular diathesis, and may in this way contribute to the arrest of the local lesion. That such results are due to pregnancy, he thinks is evident from the following considerations:

"1. Pregnancy produces a condition antagonistic in the economy.

"2. Pregnancy is a vital process, a highly physiological act, and hence its existence is incompatible with the progress and perfection of a purely morbid effort.

"3. Pregnancy diverts the forces and fluids from the lungs, and to the uterus.

"4. Pregnancy is regarded by a large majority of medical men as antagonistic to the march of phthisis.

"5. Pregnancy depends upon the existence of certain susceptibilities which are inherent in the female system, and hence it is more universal in its operation than any other imaginable cause.

"6. Pregnancy, coition, etc., are particularly desired by women affected with phthisis, which constitutes a *pointing* of *nature* towards a *remedy* for the evils by which the system has been invaded."

Dr. L. M. Lawson, in his new work, *Phthisis Pulmonalis*, says (p. 306): "My own convictions on this subject have been deduced from personal observations, and, although not in the form of statistics, are, at least to myself, not the least conclusive on that account. It is my conviction, then, that in the tubercular predisposition, or even the *precursory* stage of phthisis, the occurrence of pregnancy, under favorable circumstances, and frequently repeated, so change the vital actions as to delay or entirely arrest the impending local deposit. And what I mean by favorable circumstances is, that the person should be in the enjoyment of a fair degree of general health and strength, the pregnancy progress regularly to its natural termination, and that the subject during the time be placed under proper hygienial conditions in regard to exercise,

clothing, diet and habitation." When the disease has become fully established, Dr. Lawson is of the opinion that, if the tubercular deposits be limited, and the patient's strength and digestion good, pregnancy may still retard the progress of the local disease. But if the deposits be extensive, and softening has occurred, gestation will not retard the malady, but, on the contrary, will have a tendency to accelerate it.

Dr. Sweet, in his excellent *Lectures on Diseases of the Chest*, expresses an opinion on this subject quite different from those just given. He says (p. 263): "There is a common impression that pregnancy retards the progress of phthisis. Probably it only renders it latent, and thus an apparent rather than a real advantage is gained. That it produces neither of these results in some cases, I am well convinced; and the practitioner who recommends it to his patient may be disappointed even in a temporary advantage. Even supposing that the progress of tuberculosis is retarded during the existence of pregnancy, what is the final result? As soon as delivery has taken place, the pulmonary diseases usually advances with a greater rapidity, and, in addition, a child with a strong tuberculous tendency is born. Certainly there is no great advantage in these results, and you will, I hope, be disposed to adopt the opinion that I have formed: never to advise pregnancy to a tuberculous female. Cases of this kind will occur often enough, and the evil consequences be experienced, without, or in opposition to our advice."

M. Laus, in his great work, *Pathological Researches on Phthisis*, p. 305, occupies nearly the same ground as Dr. Sweet, although his ideas are not as clearly expressed. "We have," he says, "not been able to decide whether pregnancy is capable of retarding the progress of phthisis; it is evident that numerous facts are required, and several years in a lying-in hospital, before we can have any positive information on the subject. We may observe, however, that perhaps there have been some error and confusion among those who have hitherto admitted such an influence. It is indeed possible that many of the symptoms of phthisis may be less prominent during pregnancy, while the progress of the disease is really unaffected. On the other hand, it is not impossible that after labor the progress may be more rapid than at any previous period; and this difference before and after confinement may, to a certain extent, have given rise to the impression."

MM. Dubreuilh and Grisolle have both presented reports to the French Academy of Medicine, in which they ignore the

opinion of antagonism between pregnancy and phthisis, and have attempted to establish the idea that the progress of phthisis is hastened by that particular state. These gentlemen are the only individuals, so far as my knowledge extends, who have made any attempts to furnish us with any statistics on this subject. They have produced forty-eight cases for the solution of this question; but they are limited in number, and too imperfectly described to be of any material use.

We might quote the opinion of several other writers, but they would not add anything to our knowledge on this subject, or assist us materially in its solution. It can not, however, be denied that the weight of authority, as it stands recorded on the pages of medical practice, is in favor of the opinion that pregnancy is antagonistic to the development of phthisis. But when we reflect that this opinion is based exclusively upon theoretical deductions, we do not consider it entitled to very much confidence. In so important a question as this we should have something more than theory; nothing but facts and their legitimate deductions can fill the bill of our wants in this case. Fine-spun theories may do to amuse the man of fanciful intellect, but they are frequently of no value when applied to the wants of suffering humanity. Perhaps some will regard it an unjust criticism, when I say that in some of our most popular medical works theories are taught almost to the exclusion of facts. And in very many of our medical schools the same great error prevails; and hundreds of young men come forth from them annually to enter upon the practical duties of the profession in no way qualified. Hence it is a notorious fact, that not one half of them who graduate ever become successful practitioners. They attempt to reduce their metaphysical vagaries to practice, and the result is almost a uniform failure.

In our profession it is a serious truth that the opinions and theories of great writers and teachers are too often taken for positive knowledge. Antiquated dogmas take the place of the grand truths discovered by the research of modern medical science; facts derived from practical experience and observation must give place to some miserable hypothesis that should never have found a lodgment in the human mind. The young physician thus learns to depend upon others; he adopts their opinions without proper investigation, and he frequently finds, to his great mortification, that they are erroneous and of no practical utility.

If a man would become a successful practitioner of medicine, he must not depend too much on the opinion of others;

and, indeed, this is true in every department of active life. If a man would have success, he must stand up for himself. Every man has his own sphere, his own duties, and his own powers to discharge them. This place no other man is to take; his labor no other is to perform. This is the natural order, the divine arrangement. If a man would acquire might of intellect, be a power in the world and gain an immortal name, he must to a great extent travel through the fields of science independently and alone, never adopting a theory or an opinion because it is sanctioned by a great name. And by this we do not mean to intimate that the aid and teachings of others are to be abjured. No, far from it. Let us go to all the great masters of our noble profession, and to all the wisdom which past ages have treasured; of the works of the present time, let us study all those which stand as the indices and prototypes of modern medical science. Let us apply to all the great fountains of knowledge for ourselves, not to fill a reservoir, but to water the plants which grow in our fields. To the young physician I should say, plant your own crops, and reap your own fields, and you will enjoy the sweet fruition of your own labors.

In investigating every subject that relates to the practice of our profession, we should exercise our own judgment, and conscientiously follow its teachings. Especially is this necessary in the case before us, where there is such a contrariety of opinion. If pregnancy is antagonistic to phthisis, its occurrence in a consumptive patient is a fortunate circumstance; if not, it is unfortunate, and he who recommends it is inflicting a great wrong upon his confiding patient. For my own part, I am convinced that pulmonary tuberculosis is not in any way ameliorated by pregnancy.

If pregnancy has such a powerful influence in correcting the tubercular diathesis, and arresting the local lesion, as some authors maintain, we ought at least sometimes to meet with cases of recovery from the fell disease, but such has never been my good fortune, and I have never yet heard of a well authenticated instance in the observation of others. The most strenuous advocates of this theory have never presented a single case of this kind. Dr. Warren, in that elaborate and extensive essay of his, has not furnished a single instance. Dr. Morton mentions one case where phthisis appeared to be suspended, for a long time, by the frequent occurrence of pregnancy, but the individual ultimately succumbed to the pulmonary disorder. Dr. Warren in his essay has labored

very diligently to show that pregnancy is a state of plethora, and that this condition is unfavorable to the development of pulmonary tuberculosis. I do not know that this has ever been seriously controverted But that this state will be generally produced in phthisical females by the occurrence of pregnancy, has never been demonstrated. Indeed, experience teaches us to believe the contrary. Pregnancy, for its proper accomplishment, always requires an extra expenditure of vital power, and as phthisis is essentially a disease of weakness and debility, this must inevitably tend to its development in those who have a decided proclivity to the malady. And how often is it the case, that we see young women afflicted with this disorder marry, become pregnant, struggle through it, and fall a prey to the disease within a year. From these considerations, and others that might be named, we are compelled to dissent from the commonly received doctrine, that pregnancy is antagonistic to the development and progress of pulmonary tuberculosis.—*Cin. Lan. & Observer.*

THE SANITARY ASPECT OF THE RECENT FEDERAL CAMPAIGN.

"The secret of the failure of our armies," says an American medical journal of August last, "is comprised in the single word—SICKNESS." "Our present army," writes (two months later) Dr. Edward Jarvis, one of the United States most distinguished statisticians," is in better condition than those of other times and other nations; and more will be done to this end." The first-named authority draws his (as he phrases it) "inevitable conclusion" from the asserted and somewhat cogent facts, if true, that at the moment of writing no less than one hundred regiments were invalided, represented but a fraction of the actual reduction of the Army's physical energy and strength; and that within the short space of three months 50,000 men, it was estimated, had been sent to the rear of the "Grand Army of the Potomac," notwithstanding that during that time it was "within twelve hours" sail of the Capital, and Commissary stores were in unlimited "quantities, at the command of the proper officers," that the army had marched "less than a hundred miles through a rich farming country; and that there was no prevailing epidemic." The last-named

authority bases his conclusion chiefly upon a preliminary Report on the Mortality and Sickness of the Volunteer Forces, by the Actuary of the Sanitary Commission, dated May 18th. From this we learn that the annual death-rate of the Volunteer Army, up to that period, was estimated, making allowances for all defects, at 65 per 1000 of the strength. The annual rate of mortality of the British Army throughout the Crimean war was 227 per 1000—the maximum rate being 1173 (January, 1855); the minimum, 72 (June, 1854). In the two months ending the campaign, when the hygienic control of the camps was almost perfect, when provisions were abundant, when the men were well housed and well clothed, when there were no casualties and duty was not excessive, when the death-rate had fallen to the lowest point it reached since the terrible winter of 1854, and when, in short, the sanitary condition of the force would have been well nigh unique in military annals, except from the long-continued fixity of position of the encampments and the serious drawbacks arising therefrom, the mortality did not fall below the annual average of 124 per 1000!

The "constant sickness-rate" of the Federal Volunteer Forces, as given in the Report referred to, is no less remarkable than the death-rate, for it is stated to be but 104 per 1000—that is to say, about double the rate occurring amongst our troops at home under the most favorable circumstances.

If these deductions were to be received unchallenged, well might Dr. Jarvis claim for the United States Volunteers, in the midst of a disastrous war, a supremacy of health-condition above the forces of the chief of European nations in active service. We will not pause to inquire how it comes to pass that forces characterized by such unrivalled health-efficiency (if mortality and sickness are still to be the measure of health) should have proved so unfortunate in the field. Certainly there is no absolute connection between physical vigor and success, notwithstanding that the former in protracted campaigns has invariably been a chief element in securing the latter. It is simply absolute to note that the official returns of sickness and mortality for the Federal volunteers exclude "three months'" volunteers, and "those portions" of the forces which do not make monthly returns to the War Office—facts, by the way, kept somewhat in the background in the official report. The importance of these exclusions will be seen presently.

When, in July, 1861, the camps in the vicinity of Washing-

ton were inspected by the Secretary of the Sanitary Commission, he reported that he was "compelled to believe that it is hardly possible to place the Volunteer Army in a good defensive condition against the pestilential influences by which it must soon be surrounded. No general orders (he adds) calculated to strengthen the guard against their approach can be immediately enforced with the necessary vigor. The captains especially have, in general, not the faintest comprehension of their proper responsibility; and if they could be made to understand, they could not be made to perform the part which properly belongs to them in any purely military effort to this end. To somewhat mitigate the result is all the Commission hope to do." On July 27th of the same year, the Sanitary Commission resolved, *apropos* of the discipline of the Volunteer forces,—"That it is the public conviction of the Commission that the soldiers themselves, *in their painful experience of the want of leaders and protectors*, would heartily welcome a rigid discipline exerted over their officers and themselves; that the public would hail with joy the inauguration of a decisive, prompt, and rigid rule, extending alike to officers and men; and that any despondency or doubt connected with our military and national prospects, or with the health and security of our troops, would disappear with the first indications of a rigid order enforced with impartial authority throughout the whole army.

In December, 1861, we are told by the Commission in a report on the hygienic conditions of the Volunteer camp and forces, that "Slovenliness is our (the American) most characteristic national vice." We are told also of the force being inundated by men utterly unfit for service from physical ailments and defects, in consequence of the entire absence of preliminary inspection. The natural result of this state of affairs is seen at the first battle of Bull Run. The Commission informed us that the troops were brought into action badly fed (although close upon their stores), exhausted with fatigue, and, "in respect of discipline, little better than a mob." We have already seen what happened before Richmond with the "Grand Army of the Potomac." "When will our rulers learn wisdom and humanity?" exclaims one of the Inspectors of the Sanitary Commission, after the recent actions in Maryland. "Everything," he says "was wanting that wounded men need, except a place to lie down, and the attentions of personally devoted surgeons (without proper stores, however). The deficiency was greater than usual, for two reasons," he

adds: "one, the hurry of the army in passing from a campaign in which everything in the way of supplies was exhausted or lost; the other, the obstruction of the Monocacy, and the want of independent transportation of the (medical) Bureau." Finally, we learn from the Secretary of the Sanitary Commission, in a paper dated the 21st of October, that thirty regiments of one State alone went into the battle of Antietam "absolutely without the smallest particle of medical or surgical stores in the hands of the surgeons;" and that the Government supplies for the relief of the wounded did not reach the ground until the third day after the battle.

What the Sanitary Commission foresaw at the beginning of the war came to pass, as these facts pretty conclusively show, during its course. They are isolated facts; but it needs little experience of military matters to estimate their grave significance in the history of a campaign. They suffice to indicate a condition of things amongst the Federal Volunteers which probably has never yet been witnessed in armies without leading to disaster. We may reasonably conclude that our hebdomadal contemporary across the Atlantic was fully justified in the opinion, that the immediate (whatever might be the remote) cause of the disasters which have befallen the Federal Forces, was SICKNESS. We may further surmise that those portions of the army which did not make monthly returns of sickness and dead were the portions which suffered most from the baneful hygienic conditions to which the men were exposed; and that the exclusion of "three months'" volunteers from the returns which were made, was probably the excision of that portion of the forces—the untried, untrained, and immature—which suffered most from those conditions. —*London Lancet.*

EDITORIAL AND MISCELLANEOUS.

Rush Medical College.—The exercises of the Twentieth Annual Commencement of Rush Medical College occurred on Wednesday evening, the 21st inst. Fifty-eight gentlemen received the degree of Doctor of Medicine. Prof. Brainard conferred the diplomas, accompanying this duty with a few brief and practical observations. The usual Valedictory Address was given by Prof. R. L. Rea. Of this, we need say nothing here, as we hope in the next Number to spread it before our readers. Suffice it to say, that it worthily sustains the enviable reputation which Prof. Rea has achieved as a teacher in his particular department, and is luminous with the high professional principles which he illustrates in the rounds of private practice. Rev. Robert Collyer acted as Chaplain.

One hundred and seventy-five students have been in attendance during the course just terminated, and as the classes have been steadily increasing for several years past, it may not be unwarrantable to claim for the college very flattering prospects for the future. To sustaining and enhancing the high character and popularity it has already achieved, the Faculty will continue to lend their best energies; and they are determined, that hereafter, as heretofore, its diploma shall everywhere be received as evidence of real merit on the part of the possessor. The last graduating class was one of which any institution might well be proud.

The following list embraces the several names and theses:

Edward E. Lynn, Pathology of Otitis.....Illinois
S. L. Marston, Puerperal Convulsions.....Wisconsin
F. C. Mehler, Wounds of Thorax.....Illinois
T. J. Montgomery, Evidences of Gestation.....Indiana

James Muncey, Ovarian Dropsy.....Iowa
L. P. Y. McCoy, Functional Derangements of Uterus..Illinois
Geo. C. McFarland, Causes and Treatment of Ununited Fractures.....Illinois
John McLean, Gunshot Wounds.....Illinois
J. W. McNeel, Signs of Pregnancy.....Wisconsin
G. Copp Noyes, Valvular Disease of the Heart....Wisconsin
C. O'Brien, Colo Rectitis.....Wisconsin
J. W. Ogle, Bone and its Uses.....Wisconsin
Wesley Phillips, Remittent Fever.....Illinois
W. G. Pratt, Reflex Action.....Illinois
B. G. Pierce, Tendency to Death.....Illinois
J. M. Rankin, Milk Sickness.....Illinois
J. S. Ransom, Opium.....Iowa
F. C. Robinson, Constitutional Syphilis.....Illinois
L. N. Rogers, Common Sense the Pract. Med.....Illinois
J. W. Saucerman, Neuralgia.....Wisconsin
William Scott, Alcohol.....Indiana
N. W. Sigworth, The Kidneys.....Indiana
A. L. Small, Diagnosis.....Illinois
Lewis H. Skaggs, Dysentery.....Illinois
W. H. Smith, Mannuary Abscess.....Missouri
Pembroke R. Thombs, Diphtheria.....Iowa
Gordon Andrews, Cathartics and Astringents....Wisconsin
Chas. F. Barnett, Diphtheria,.....Indiana
E. Bishop, Dysentery and Diphtheria.....Wisconsin
Ela L. Bliss, Digestia Depravate.....Wisconsin
Fred. W. Byers, Ipecacuanha.....Pennsylvania
Philo W. Chase, Sulphate Quinine.....Ohio
Jas. Cunningham, Secretion of Bile, &c.....Illinois
John W. Dean, Diphtheritis.....Indiana
Chas. F. Dilly, Rheumatic Carditis.....Iowa
Wm. B. Dunkle, Rubeola.....Iowa
Chas. S. Elder, Physiology of Menstruation.....Illinois
Francis A. Emmons, Cuculatu of Blood.....Illinois
Uriah B. Ferris, Surgery.....Illinois
Stephen N. Fish, Epilepsy.....Illinois
Wm. M. Gregory, Diphtheria.....Illinois
Harrison H. Guthrie, Malaria.....Illinois
Geo. F. Heideman, Acute Meningitis.....Illinois
Prier J. Herman, Puerperal Fever.....Illinois
Myron Hopkins, Typhoid Fever.....Illinois
Sam'l. G. Irwin, Typhoid Fever.....Indiana
Dan'l. C. Jones, Bilious Remittent Fever.....Illinois

James Kelly, Bilious Fever.....Iowa
Chas. B. Kendall, Typhoid Fever.....Illinois
Hiram M. Keyser, Milk Sickness.....Illinois
G. Allen Lamb, Pneumonia.....Wisconsin
Charles F. Little, Amenorrhœa.....Illinois
W. H. Thompkins, Typhoid Fever.....Illinois
J. A. Williams, Pneumonia.....Illinois
John L. Williams, Epidemic Cholera.....Wisconsin
W. T. Wilson, Typhoid Fever.....Indiana
John Zahn, Venesection in Pneumonia.....Illinois

To Subscribers.—The prompt returns received in reply to the note from Prof. Ingals elicit our sincerest thanks. For those still in arrears we reserve compliment a little longer, trusting they will also soon merit it.

It will be noticed that the number of pages in the present number is somewhat reduced. We are impelled to this course in common with the press generally. Paper and labor have so largely appreciated that we must either do this or raise the price of the JOURNAL. We pledge ourselves to enlarge again just as soon as prices will warrant, be it sooner or later. Our subscribers will see at a glance that as gold has gone up, and is still rising, prices of all sorts must rise. Prices are more than one-third higher and still ascending, but we abate but one-fourth and there shall stop. All deficiencies we shall meet with our private resources.

The ensuing year we shall aim, as heretofore, to make the JOURNAL an exponent of true Medical Science and legiti mate progress. The present number has been prepared for the press under peculiar disadvantages, particularly the ill health of the acting Editor, which has prevented early issue and that attention which he will hereafter give. In lieu of long selections, it is proposed to give abstracts of all valuable articles found in our exchanges, with such comments as may seem proper. We shall aim thus to hold the mirror up to the profession. It is expected that serial articles, upon important topics, will be given both by correspondents and the Editors.

It may be observed for convenience that hereafter, as during the last two years, all editorial articles by Dr. Brainard will be subscribed by his initial. For all others, Dr. Allen alone is responsible.

Contributions to our pages are solicited from all of our subscribers who can find time (and who can not?) to use the pen. We number upon our subscription list many of the most capable minds in the North West, and we trust that these will not "hide their light under a bushel," but let it shine along the pages of the JOURNAL, so as to be seen and read by all men. *Verb. Sap.!*

The Hopps' Trial.—We have full notes of the testimony, arguments of counsel, and the Judge's charge in this very interesting case, which we shall condense for a subsequent number of the JOURNAL.

The verdict of the Jury, consigning an insane man to ignominious death, is a most startling commentary on the boasted enlightenment of the age.

With all respect to the legal profession, we must be permitted to remark, that we have never seen it so recklessly disgraced as it was by the official prosecutor in his conduct of this trial. To say that that conduct was bloodthirsty and brutal, is tame. Both the manner and the matter of his discourse were permeated in every part by the rank fumes which reach their perfection in the lowest gambling hells, the stews, and whiskey dives of the city.

In one respect, it was admirable—having not the slightest idea of the real matter involved, the brazen effrontery with which the Prosecutor launched upon a Stygian sea of low flung jokes, coarse expletives, pettifogging tricks, shyster manœuvres and filthy inuendoes—was such that truly—"None but himself could be his parallel."

The trial, so far as the prosecution was concerned, speedily lost the character of a dignified investigation as to the guilt or innocence, responsibility or irresponsibility of the prisoner—

it became the arena where high toned gentlemen were obliged to see their cause lost, because they could not descend into the atmosphere contaminated by the pestiferous aroma exhaled from their professional antagonist.

It is understood the Jury opened their deliberations by prayer—so it has been heralded in the papers. It was a highly religious jury, and, as the tendency of extremes is to meet, so they gathered themselves into the "goodlie companie" of the Prosecuting Attorney, and awoke from their religious beatitudes to find themselves "at one" with him. With all reverence, we must say, that we had rather have heard of them as canvassing the testimony in the case—testimony which proved as clearly as the sunlight that William Hopps was an insane man, and as such wholly irresponsible for the alleged crime.

We believe in capital punishment for murder, but we put it on record, even before decision of the motion, now pending, for a new trial, that William Hopps will not be hung. You cannot hang an insane man in this past noon of the nineteenth century.

The Institutes of Medicine.—By Martyn Paine, A. M., M. D., LL. D., Professor of the Institutes of Medicine and Materia Medica in the University of the City of New York, &c., &c., &c. Seventh Edition. Harper & Brothers, New York, 1862.

This book is the concentrated essence and life-blood of Dr. Paine's scientific existence, and, as every student of the Metropolitan College, with which he is connected, is expected to buy one, of course, its editions are soon exhausted. Besides this, it is very cheap for the size, and thus makes a formidable figure on a library shelf at a very trivial expense. One of our Chicago ladies ordered her upholsterer to buy her a library "to match the other furniture," and several copies of the "Institutes" were shrewdly put on an upper shelf in filling the order. The man who read the "Monikins" has also secured

a copy; and "the other man," who is trying for the secret of perpetual motion, thinks he has the clue now, whilst chasing Prof. P.'s ideas from references to references, among his multitudinous paragraphs. For everybody knows that this model author proves everything by his references, nothing by demonstration or detailed explanation.

The volume is capital for museum purposes, it saves so much trouble in collecting antiquities and fossils elsewhere in divers directions.

To the earnest student we need only say that this volume is utterly worthless. Its so-called principles are but the shadows from the dark ages of medicine projected over upon our times. It is a heavy drag-net filled with the ooze and slime of drowned antiquity.

The author is one striving to "ray out darkness" rather than light.

He is infallibly unjust toward every author whom he quotes or notices, whether to censure or drag to the support of his own limping, half starved dogmas.

Common literary fairness is unknown to him, and to this day, though convicted, again and again, of the grossest misrepresentations and calumnies, he never retracts. What he once asserts he stereotypes and repeats, ever after unchanged.

The Institutes of Medicine, as he would teach them, are a continuous "crime against nature." His teachings have done more to render MEDICINE a byword and a reproach than all the studied attacks upon it, or than any half score epidemics baffling treatment, since he was born.

The Hospital Steward's Manual.—For the instruction of Hospital Stewards, Ward Masters, and Attendants in their several duties. Prepared in strict accordance with existing regulations and the customs of service in the armies of the United States of America, and rendered authoritative by order of the Surgeon General. By JOSEPH JANVIER WOODWARD, M. D., Ass't. Surg. U. S. A., Member of the Acad. Nat. Sci. of

Philadelphia, &c. J. B. Lippincott & Co , Philadelphia, 1862.

This is one of the minor treatises begotten by the necessities of the time. The author and publishers have respectively performed their duties well, and produced a book every way suitable for the object announced in the title page. It should be in the hands of every Hospital Steward and Attendant.

Anatomy of the Arteries of the Human Body, Descriptive and Surgical, with Descriptive Anatomy of the Heart.—By John Hatch Power, M. D., F. R. C. S., &c. Authorized and adopted by the Surgeon General of the U. S. Army, for use in Field and General Hospitals. Philadelphia: J. B. Lippincott & Co., 1862.

The very superior dissections by the author and others are fully illustrated in this work, and we endorse the remark of the publishers, that it will be found an invaluable *vade mecum* for those engaged in the delicate operations incident to military surgeon.

Visiting List.—Lindsay & Blakiston have issued their now well known Visiting List for 1863.

Consumption in New England, or Locality one of its Chief Causes.—An Address delivered before the Massachusetts Medical Society. By Henry J. Bowditch, M. D. Boston, 1862.

We alluded to this essay some time since, on the announcement of its doctrines in the Boston *Medical Journal*, soon after its delivery in May last. It is now brought out by Messrs. Ticknor & Fields, in a bulky but neat pamphlet, illustrated by maps and diagrams, with a few prefatory remarks, and an Appendix which gives the names of the sources of his information, with other valuable addenda.

Dr. Bowditch observes, that these investigations have occupied him for many years, especially the last eight. In 1855 and 1856 he enunciated these principles "tremblingly," but since

then they have hardened into "stern belief." The line of thought will be better elucidated by the following extracts:

The two following propositions contain the essential points of this address:—

First. A residence on or near a damp soil, whether that dampness be inherent in the soil itself, or caused by percolation from adjacent ponds, rivers, meadows, marshes or springy soils, is one of the primal causes of consumption in Massachusetts, probably in New England, and possibly in other portions of the globe.

Second. Consumption can be checked in its career, and possibly, nay probably, prevented in some instances, by attention to this law.

* * * * * *

I lay down now before you, as among my *Medical Axioms*, the following statements:—

1st. *Consumption is not, as some writers have contended, endemic equally in every part of New England;* but there are some localities where it is very rife, and others where it is vastly less destructive than in the State at large.

2d. *There is a law*, hitherto scarcely noticed, or but vaguely hinted at by one or two individual writers, but (as I believe) *never proved* until now, *which is one of the main causes, if not the sole cause, of this unequal topographical distribution of consumption in New England.*

3d. *This law is intimately connected with, and apparently dependent on, the humidity of the soils, on or near which stand the towns, villages, or even single houses, where consumption prevails.*

4th. *The existence of this law of soil-moisture, as one of the prime causes of consumption in New England*, can be proved, as I think, by several lines of argument, resting on actual facts obtained either from public or private records, statistical data, or the opinions of physicians, practising medicine in various parts of New England.

These lines of proof, or of argument, are drawn from the following sources:—

I. Massachusetts State Registration Reports.

II. Medical Opinion of Massachusetts, as embodied in the returns made to me, as a Committee of this Society—these returns consisting of written reports from resident physicians of one hundred and eighty-three towns.

III. Actual Statistics of deaths by consumption, received from such correspondents. Some of these statistics are but *incidentally* mentioned, while others are from towns, districted and carefully examined with reference to the relative prevalence of consumption in the different districts. In some of the most important of these, the examination was made without my correspondent or myself being aware of the existence of any law such as that which I shall present at this time.

IV. Peculiarities of certain towns and of villages in the same townships, in some of which consumption is quite prevalent, and in others much less so; these differences being connected most closely with corresponding differences in the amount of moisture of the soil of said places.

V. Certain well known houses, which, in various towns, are known by the inhabitants and physicians to have been long noted as the abode of consumption, and in some of which several families have been, during the past fifty years, cut off by the disease, without the least suspicion, on the part of the occupants, of the fatal position in which the houses were placed.

VI. Confirmatory facts, statistics and opinions from Rhode Island, Maine and New Hampshire.

VII. The medical statistics given in the Report on the health of the United States Army, strongly supporting the idea of the existence of the same law, and the operation of it over the whole of the United States.

VIII. Results of my own practice since I first became convinced of the truth of the law—said results consisting of (*a*) Statistics from my private medical records; (*b*) Results actually derived from my choice of localities for consumptive patients, based on a belief in the law.

IX. Apparent exceptions to the law.

On the basis of these results, he calls for better attention to the localization of houses, villages and cities; to the subject of under-drainage; the establishment of State Boards of Health; and in individual cases, he says, "*it will be our first duty to urge the patient to leave the spot.*"

The thanks of the Profession are due to Dr. B. for his laborious investigations, and the clearness and force with which he has presented his views—and views they are of very high importance. The hygienic inferences are obvious, and it must

occur to every well-informed mind on this subject, that in appropriate hygiene and correct prophylaxis, and not in any mere drug or medicine, is to be sought the closing up of this terrible outlet of human life. We shall take occasion in an early issue to comment more at large on this important subject. Meanwhile we commend these thoughts to the earnest attention of all our readers.

The People's Dental Journal: Edited by W. W. Allport, D. D. S., and E. T. Creighton. Quarterly; 50 cts. a year in advance. Published by the Editors, No. 32 Washington St., Chicago.

The dental profession have already quite a number of journals devoted to their specialty, several of which are of very high order, but all of them intended for almost exclusively professional reading. The journal before us is especially devoted to a dissemination of knowledge of the more directly practical kind among the people. Not to make people dentists, but that they may know how to take care of their own teeth, and particularly the teeth of their children. The project is an excellent one, and if carried out in the manner developed in the present number cannot fail to be of public utility. The high professional reputation of Dr. Allport is a full guarantee that his journal will be filled with matter of sterling practical value.

We have marked an article by Dr. A. on "Causes of the decay of the Teeth," for reproduction in a subsequent issue. We wish the Editors entire success in their somewhat novel enterprise.

Wisconsin Institute for the Blind.—Thirteenth Annual Report, Oct. 1st, 1862.

This institution appears to be fulfilling its benevolent purposes in the most satisfactory manner. About fifty pupils were in attendance during the last year. The Superintendent, Mr. Thos. H. Little, has discharged the duties of his responsi-

ble position in the most creditable and generally acceptable way. The Institute is located at Janesville.

Of the fifty cases, 14 were congenital; 4 from amaurosis; 4 from scrofula; 3 from small-pox; 2 from measles; 2 from scarlet fever; 13 from inflammation; 6 from accident; 1 from cataract, and 1 from hydrocephalus.

We would call attention to the advertisement of Messrs. Bliss & Sharp, Druggists, who have recently purchased from Messrs. J. H. Reed & Co. their Store, 144 Lake Street, (well known as their Retail Store.) They have made many alterations and improvements, filling up with a complete stock of Drugs, Chemicals, Instruments, and are prepared to pay particular attention to Physician's orders.

Eighth Biennial Report of the Illinois State Hospital for the Insane, at Jacksonville. Dec. 1862.

There were 302 patients remaining in the Hospital Dec. 1st, 1862. The extreme limit of accommodation as to numbers has been reached, although the wants of the State are not yet fully met.

We recommend careful perusal of the report of the enlightened and sagacious Superintendent, Dr. A. McFarland, to all those who have professional or personal relations to the unfortunate insane. We extract:

The general rule may safely be laid down, that all cases of insanity of an acute character—meaning those whose invasion is somewhat sudden—where the case is not a direct attendant on some febrile disease, are always best managed, and insured a favorable result, in an institution like this, than under the most favorable circumstances elsewhere. Yet, even here some discrimination is necessary. Where there is the least question as to the physical ability of the patient to bear removal to the institution, the advice of some competent medical man should be taken just on the eve of the journey. If this was more generally done, some of those deaths which annually occur here within ten days of arrival, would, possibly, not occur.

But with the larger proportion of cases, where the invasion of the disease is more gradual, the rule above laid down should not be so general. In a former report (Dec. 1856,) it is stated, that, "it by no means follows that the existence of insanity in certain forms implies the necessity or propriety of the removal of the individual so affected from the place of his ordinary residence. An insane hospital bears the same relation to the deranged mind that the splint and bandage do to the fractured limb. It protects it from dangerous extraneous influences, and holds it in a position to admit of the requisite medication. As there are some fractures where neither of these demands exist, so there are many cases of insanity where nature and art may effect a cure without unusual interposition. To an insane person whose domestic attachments remain firm, and whose delusions in no way impair the moral affinity which should exist to those about him, removal to the society and care of strangers is a measure of, at best, questionable expediency."

One whose only offense may be is motly raiment, or, perhaps, the irregular way by which he supplies the wants nature has created within him, should not, even if he could, always be thus summarily dismissed from the sympathies of his fellows. And, even, if consigned to the hospital, he shortly reappears, from the necessity of the case, again to claim a seat at the Father's table. Society has yet a duty to learn toward the lunatic. His state has no kindred to crime, and should be regarded without aversion. He is not a fractional part as dangerous as he even appears. A few kind words, looks of confidence and sympathy, or a seat at the table, will smooth away the most dangerous features worn by any. It is mostly the neglect of society which has made him dangerous, and when this truth is fully learned he will be regarded with far different eyes than at present.

In a case not immediately urgent, discuss the idea fully among all these directly interested; examine well as to the value of the change to be made; and when a preponderance of opinion is secured, act decidedly and at once in using the agencies of the law. And when this decision is made, above all things we implore, that there be no deception used toward the one most to be affected by it. Inform him candidly and without disguise, that, by a common agreement among his best friends, he is to be placed for a while in the hospital, and, in the majority of instances, the expected opposition will not appear. It is better even that opposition be overcome by the

judicious use of force, than by a fraud, however facile. There is, in the detestation of deception by the insane, something quite preternatural. It outlasts the remembrance of almost any other species of abuse. The complaint is almost daily heard here," "I can forgive them everything else except their deceiving me."

When these duties have been conscientiously performed, there is still another, not less important, best expressed in the sterling commandment, *Let him alone.* The difficulty in effecting a cure, in a patient, whose residence is in sight of the hospital windows, is often remarked by those having charge of the insane. The human mind is the tenderest texture that passes through the Creative hand. Without the most subtle, precise, and guarded adjustment of treatment, its wounds are as difficult to heal as the torn filaments of gossamer.

We regret that our space will not permit further extracts from this valuable report.

Eloquent Tribute to a Surgeon.—In a sermon preached by Rev. Robert Collyer, of this city, in Nov. last, and which has been "published by some who heard it," we find the following language which we cannot forbear reproducing:

When I went to Fort Donelson to nurse our wounded men, it was my good fortune to be the personal attendant of a gentleman whose skill as a surgeon was only equalled by the wonderfully deep loving tenderness of his heart, as it thrilled in every tone of his voice and every touch of his hand. And it all comes up before me now, how he would come to the men, fearfully mangled as they were, and how the nerve would shrink and creep, and how with a wise, hard, steady skill he would cut to save life; forcing back tears of pity only that he might keep his eye clear for the delicate duty; speaking low words of cheer in tones heavy with tenderness; then when all was over, and the poor fellows, fainting with pain, knew that all was done that could be, and done with a severity whose touch was love, how they would look after the man as he went away, sending unspoken benedictions to attend him.

In a foot note the Reverend author observes:

My position as nurse for this gentleman, Dr. R. L. Rea, of this city, gave me such insight as inspired this poor tribute to his worth and goodness. He was one of a noble band, all full of the same spirit. I am glad to say such words of them,

and all the more that I am sure they never expected to hear them.

Such mutual recognition by members of the different professions, elevate and inspire each to higher efforts in behalf of humanity.

We quote his language, all the more willingly, because so many of the "cloth" have disgraced themselves by studied attempts to degrade our profession and exalt all forms of quackery. It is unnecessary to say that rarely has compliment been better deserved than in this instance.

☞ At a meeting of the students of Rush Medical College, upon the decease of one of their number, the following resolutions were adopted:

Whereas, It hath pleased Him who watcheth the sparrow that not one fall to the ground without His care, to remove a respected and beloved fellow student, Chas. L. West, to the far distant spirit land "from whose bourne no traveler returns," therefore,

Resolved, That we, as a class, recognize in his decease the removal of one who gave promise of becoming a shining light in his chosen profession.

Resolved, That we tender to the brother and friends of the departed our heartfelt sympathy in this, their bereavement, and in this hour, when the cords with which nature has bound friend to friend are so untimely sundered.

Resolved, That a copy of the above be sent to the friends of the deceased and also to the Chicago *Medical Journal* for publication.

C. F. Little,
G. Allen Lamb, } *Committee.*
F. Emmons,

Chicago, Dec. 29th, 1862.

☞ Business letters to the Journal should be addressed to Dr. E. INGALS, Chicago, Ills., P. O. Drawer 5787. When money is received a receipt will be returned with the next number of the Journal, and subscribers failing to get such receipt will confer a favor by giving us notice of the omission.

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ORIGINAL COMMUNICATIONS.

VALEDICTORY ADDRESS

TO THE GRADUATING CLASS OF RUSH MEDICAL COLLEGE, SESSION 1862-3.

By Prof. R. L. REA, M. D.

GENTLEMEN GRADUATES:—By the generous courtesy of my colleagues, I have the honor, as well as the very great pleasure of offering you our congratulations and saying the parting words.

It is most natural that we, who have been instrumental in your present precedence, should feel complacent pride in this formal closing of your professional school days, and appropriate that we give you, in a word, the after-life lesson.

This is a meeting of mingled emotions. The feelings of pleasure and pain, rejoicings and regrets, come freely floating over us as we blend in our view the past and the present.

A longer or shorter span of years ago found you all with your minds made up for the study of medicine. Choices of a profession were decided by a diversity of motives. One of you thought he had a mind adapted, by its organization and culture as well as by its tastes, for benefitting the world in this way—and, in return, receiving a competency, and so fulfilling his mission. Another thought of the fame it would

bring, another the gain, another dreaded manual labor, and one had a great benevolent heart, whose every murmur was good to his fellow man, and took this way to do his duty. From these or some other, *all* of you found yourselves deciding on a preceptor and completing your arrangements for beginning your studies. Does it come back to *some* of you now how difficult it was to complete these arrangements—of the obstacles rising mountain high, soul-depressing and unapproachable?

To one there stood in the way a penurious father. You had no father; and you, an affectionate and dutiful son, had a dear old mother, and good, kind, dependent sisters, and none to help. Others more fortunate had none of these.

Then came the first discouraging days, when sphenoidal and ethmoidal terrors haunted the sleeping hours, and fleshless fingers met languid responses to their bony beckonings, and sulphur seemed created for a new terrestrial use. Often, when hours had been consumed in perfecting anatomical details, and it seemed as if every fact and idea were in place and ready for use, a question from your preceptor was sufficient to dissipate the whole; and after strange and fruitless search after the lost ideas on the bare walls, you were compelled to *review*. This was one of the times when you came near "giving up and coming down." Perhaps the next was more successful, and these dark days gave way and the genial and happy days of student life, by degrees, took their places.

Then, when the last thread was worn and the last dollar mateless, by a bold stroke of pecuniary strategy, you found yourself prepared to resume your studies—and so, by these interrupted, determined and unyielding efforts, you at last found yourself selecting a school for your attendance. Here have you come, and by incessant toil, hazzard of health and even life itself, you find yourselves pronounced worthy to assume the duties and receive a recompense for the toilsome and perilous labors so freely and liberally given to your chosen profession. That I do not exaggerate the risks attend-

ant is too deeply impressed upon your minds in one of your number's having paid the penalty for his assiduity with his young life.* He had arrived at an age when the cares and anxiety of fond parents seemed about to cease in the glowing hopes of budding manhood; but escape was not given him from the dangers of his own devotion, and he now rests silent forever. Peace to the dear boy.

It is now and here at the end and consummation of your long deferred hopes, that we feel called as a Faculty to confer, and you as our honored pupils to receive, tokens of our confidence and fraternal regard. Truly it is a time for you to feel happy and receive the commendations and congratulations of your friends.

Your forty months of pilgrimage brings you to the mount where you see the tedious, turbulent trials of the past from which you have escaped, and view the promised land; and as you look back along the time through which you have buffeted the hard way, your heart flutters for *very anxiety*, lest the past undo itself. You feel cheered as you contrast this with the future. Dry, dusty subserviency to books and masters is to be exchanged for the duties, dignities and confidences of the new position. It does look beautiful and inspiring. It gives the world a *new* glow, *home* seems better, and happier to receive you as a physician, friends more cordial when welcoming you as Dr., and the many preferences in life are sure to follow. The promised land spreads beautifully its broad and velvety expanses, laid in liquid silver reflecting the azure, deceptively seeming the true way to the etherial, dazzling and delighting your impatient spirit.

You are about to assume the full responsibilities of actual life. Hitherto you have acted a subordinate part. In starting in this great experiment, you cannot tell before hand *what* will happen to you. It may be *good*, it may be *evil*. I take the fact that you stand here this evening at the end of a long,

* Chas. S. West.

stern and perplexing course of study, most of you the honored instruments of your own success, as speaking much of hope for you. It gives me the *largest* confidence to see the first efforts of a man's life hedged about with thick set difficulties, and while he *occasionally gives up, never comes down*, until at last he breaks through them all, and every day gets richer in the world's experience and emoluments.

The great North-west is a fruitful field for observation, in this contest with circumstances. Here, as in other newly made countries, the boy must make his *own* battle with the world, and especially those pursuing the learned profession, or, in the father's language, playing gentleman. This is rendered easy in his eyes by the facility in getting funds in a very honorable way, viz: school teaching. How many of you have not taught? I venture three out of every four have. We have not arrived in our western civilization to that generally diffused competence to be found in older, more staid, and less enterprising communities. Here, if one of our yeomanry makes a success and wealth pours into his lap, he sits down and calculates the acres it will buy, and not the sons or daughters it will educate. What, spend a thousand dollars in collegizing one of my boys? That would furnish a feather bed, cow and freedom suit to the other fourteen.

This will undoubtedly change, as the revolving years smooth the hillocks and dry the morasses of our prairies, and replaces them with waving beauty and substantial prosperity. Our students will come to us more fully supplied with the comforts and luxuries of life, but it may be *not* with the necessaries. Money in profusion is not one of the necessaries. It is one of the DESTROYING ANGELS, and seldom leaves its doorposts bloodless. Rather let me say *poverty* is one of the essentials. Poverty is an element of strength, wealth of weakness. Poverty is a tonic, wealth an anodyne. One supports, the other paralyzes. I do not think I exaggerate, when I say the success of those born in affluence is the exception. There is something so enervating in having everything served to you. Every want

is supplied at the word; the breath of asking is the price of anything All mental effort or enterprise being ignored and abandoned, the individual degenerates mentally and morally, as certain as must the unused limb. Exercise strengthens, and we understand the philosophy of it; and we know that he who is cradled, reared and disciplined by poverty, will present the bold, honest, manly independent original. The necessities of his situation develop these qualities. Make a young man poor, and the very effort of his inventive genious in striving to force himself against the current, will give more exercise, and more fully develop his mental power than anything beside. The goal is placed in the stream, the rich above and the poor below it. The favored float to it, and the lowly labor to it. The toiler has this advantage, though, that he is in *little* danger of *passing* it.

Don't understand me to mean, that all you have to do in life to *succeed*, is to be *poor*. If any of you are in the possession of any considerable of the world's wealth, you needn't go home and dispense it, with the idea of taking a fresh start in life with superior prospects of success. It is possible for one to be poor every way, to be a very indifferent fellow surrounded by all the blisters poverty brings.

The point aimed at in what I have said is, that other things being equal, the boy raised where honest necessity awoke him in the morning, and a frugal enterprise busied his hands during the day, and who slept the refreshing sleep of industry at night, bids fairer to become one of the world's cherished, than he whom pampering pride and luxurious prodigality too often fit for the fate they receive — *merited forgetfulness.*

There are students in our classes, who are worth their thousands, and yet my noble boy who paid your last greenback for the parchment you now hold, had I the power I wouldn't let you change places with *any of them.* Poverty is often frightfully unhandy and disagreeably inconvenient, but not where you are now. I have large sympathies, but I

don't pity you one particle. Had I the power, I wouldn't give you a penny. I would let you *make* the money to pay your first board bill, with the first proud triumph of your art. Several weeks' unpaid bills are great energizers. You are not likely to complain of having your rest broken, or speak anything but courteously to patients when calling for your services, if you need theirs.

Jean Paul says, in speaking of the penury of his father's early life: "I cannot but choose to say to Poverty, 'Be wel come, so thou come not too late in life.' Riches weigh more heavily upon talent than poverty. Under gold mountains and thrones lie buried many spiritual giants. When to the flame that the natural heat of youth kindles the oil of riches is added, little more than the ashes of the Phœnix remains, and only a Gœthe has had the forbearance not to singe his wings at the sun of fortune."

Soon the ties that have bound us so kindly and agreeably together, *will* be *severed*, and you find yourselves engaging in the real profession. It is an interesting and pleasing portion of your life. The culmination of your past hopes seem now about to be realized, and you to assume the role for which your studies fit you. Hope and distrust now begin to mingle. There are few in whom the *former* does not *predominate*, and yet when we consider the fearful burden implied in the very name Physician, there are few who do not feel the latter. I should feel but little confidence in a person who was all self-assurance, and stepped boldly and unabashed untrodden ground. There will be much that will be new, and much that will gratify. Your first successes will be models. The first dossil of lint that you carefully place in an aching cavity, followed by immediate relief, you will feel like shouldering your whiting bush and making all the fences S. T. 1860, X. oil of cloves and morphine.

You will be employed distrustingly by your first patrons, *perhaps* from *necessity*, and *then* will be your *time* for extra efforts. If these efforts *are* crowned with success, your tri-

umph will be the more perfect, and you will find a more secure place in their confidence and affections. Nothing is half so grateful as to be agreeably disappointed, and they will often make you amends for their distrust, in the most *lavish* expenditures of future friendship.

This leads me to say, never be discouraged by trifles. Now, were I to define trifles, I might surprise you in the extent to which this definition applies in this connexion. It means the lack of practice for a year or two in any grateful or flattering amount. None of you must imagine that there is any place with a practice ready for you, all collected to your hands, enough and to spare, and that being overrun with practice is to be one of your first burdens. The contrary is *much* more likely to be the case, the lack of it. It is to be confessed, however, that the experience of the graduates of our institution, your alma mater, furnish much grounds for flattering hopes. I say it here, and deliberately, that there is in my opinion no institution in our entire country, the graduates of which are so uniformly successful. They almost invariably succeed, and that from the moment of their locating. You may account for it, as you think; I account for it that they are the honorable sons of industry, self-made, self-reliant and noble. Much as this success flatters the vanity and sustains the pride and purse of its possessor, I cannot think it best calculated to develop your resources. Uniform success is almost as powerful a narcotic as wealth. It is apt to render you indolent and indifferent. In addition the usual leisure of the young practitioner gives time for the careful study of the acquired cases. You are much *less* liable to fall into routinism where you form your habits of study and practice in this gradual manner. It is often a misfortune to be too successful in the beginning, though it is not appreciated at the time, and never objected to.

Another of the things that should not discourage you, is that of not being invariably successful in your treatment of cases. Don't infer from this, that the loss of a life or failure

to cure disease, are trifles in themselves, but they assume that character, when they, as natural consequences to be expected in an imperfect science, are *allowed* to deter you from your legitimate calling. The first patient you lose will come as a death knell to your heart, as well as ears, and should others speedily follow, the effect will be *startling* to your professional nerves, and the questions, havn't I missed my calling; isn't this an indication of my unfitness; haven't I mistaken the pill bags for the peg hammer, scalpel for the shears, the catline for the plough handles? will be disturbing thoughts in your quiet hours. The question is the answer. If you never *ask* the question. I will answer it now. I say yes if, you do ask it, I say no. Your sensitive conscientiousness is the best proof that the lives, healths and interests of your patients are well in your hands. It shows most clearly that you have a big professional heart, throbbing with the feelings of honor and humanity. Don't lay aside your mantle for causes of this kind. Many times your sympathies and anxieties will be brought up to the point of distraction, and the death of your patient will be little less than death to you. One, perhaps, of your earliest and firmest friends, between whom and yourself have grown interests the most sacred, ties the most tender, whose words are all kindness, whose deeds are all blessings, and as years pass the confidence grows until you next to God hold the supreme faith and when the grim monster grapples rudely and visibly at the tender heart strings you shudder and sicken, and I don't blame you. But *don't falter*. Do your duty faithfully, and abide the result.

Another discouraging and trying one of these harmless annoyances, is competition with quacks. There are few in the list more discouraging, than to see yourselves after having given the finishing touch to your education, commended by your teachers as worthy a place in the public esteem, located beside a full fledged scion of this discriminating craft. After you have labored faithfully and successfully for a time, perhaps, and the results of your practice begin to show gratifying

evidences in friends and funds, suddenly you find yourself confronted with one of the aromatic gentry. It matters little what he professes. He will not fail to have followers, and you will be surprised and disgusted at the avidity with which the crumbs of comfort *he* deigns to drop for some hopeless consumption or corroding cancer, are snatched up. This will not be among the ignorant and uninformed. It will happen in the very midst of wealth and respectability. You hear nothing but the praises of the *newly* arrived. The air is filled with the buzzing and roaring of his friends, who flock around him as flies around new honey, and usually with the same result—getting badly stuck. You are apt to imagine that your prospects are dimming; that you are not appreciated; that if men of that cast succeed, what need of qualified men? that the world is made up largely of fools, and *various* other *doubtful* and inexpedient conclusions. One thing you may conclude, and that is, that there is no department of man's concerns about which he is so superstitious as the health of his body. He can decide where his interests lie on *any other* questions, with surprising accuracy, but the moment you begin to touch his weak point—his health, he is at the mercy of the wind. A man's health is his blind side; any one can come up to him there.

Quacks have come thousands of miles to this city, to my personal knowledge, to *lay their hands* on the *sick*, that they might be healed. And the subjects of these modern miracles didn't live in the miry precincts of "Kilgubbin." They do business where property costs five hundred dollars a foot, and reside in the most fashionable part of the city. This modern Savior went home with his pockets well lined, and his patient went in search of another.

They don't need that second sermon, preached by the minister who took for his morning text: "Ye are the children of the devil," and by a ludicrous coincidence, took for his afternoon: "Children, obey your parents."

This will seem *very, very* hard to you, and it is natural it

should. But you must know that there will be quacks as long as there are ignorant and superstitious people to employ them; and from the constitution of the human mind, we fear in butterfly, or grub, they will last till the end. The most you will have to do, is to be slow to anger, and restrain the natural impulse you would have to garrote the hypocritical cosmopolites every time you meet them. These gorillas, when they have devoured what they can get with you, will seek prey some where else; some of your humiliated friends will come back to you well cured, and some will wait for the next.

These embrace but a small part of the embarrassing discouragements you will find planted in your path. You will have to run the gauntlet of gossip, and those two-edged swords placed in some mouths will pierce you to the very marrow. It will not depend on your own conduct, whether you escape this. The public servant who is *not* slandered, is below contempt.

You must not imagine that from these troubles which you will encounter, that there are not many bright, sunny spots on your future journey; that your *pleasures* are *all* things of the past. There is much, *very* much in the daily life of a devoted, earnest, true physician, full of sanctified enjoyment. You must not feel, if you do not prosper at first, that you will not succeed *at all;* that if you lose some cases, that you will not *save* some; or that because you meet some impostors, there are *nothing else.*

There is one thing—if you have a *human* organization—that will be most gratifying to you, and that is the *confidence* of your *patients.* When you have once thoroughly gained the confidence of your patrons, and see as plainly as they show, the strong and abiding faith they have in your skill as a physician, as well as honor as a man—when no word, deed or intimation from them, *ever* seconds an appeal to any one better—when you come to be regarded as the friend as well as the physician of your families, and are taken into their trust as truly and perfectly as you ought to be—when you

reckon your friends in the household by the number of it—when the oldest speak of you by day, and the sick children cry for you at night, to be made the subject of pleasant allusion at your next visit—when the little ones gather about your knees—when any little comfort contributed to you is the pride of all—when you merit and receive this confidence, it will be the anodyne for the poisoned minds of neighborhood anacondas, the soft place to rest the wearied limbs, the nectar to your parched spirit, the star of hope and comfort when the night of despondency gathers gloomily about you.

And then, if I mistake not the cast of mind and character of those who are now before me, whose diligent devotion to the principles we have endeavored to elucidate, has been the cheeriest thought that crowned our labors, if I mistake not, you cannot fail to feel a longing desire to try and test for yourselves the truth we have taught, and watch the development of facts in connexion with our art, and investigate and apply new ones. Here will be one of your most constant sources of pleasure. It will be your daily duty, your hourly occupation. It is *in* this, and *for* this, that you must leave father and mother, wife and children, and follow where your profession calls. It is this which will largely test your fitness for your chosen calling. If you should find a constant antagonism between yourself and the practice of medicine, a feeling of distrust and uncertainty, and enduring apathy, I would not tell you *this* was one of the *trifles*. There would be written on your heart's inner door, "*notice to quit.*" The sooner you can dispose of your stock in trade, and sweep from your memory with the scrub brush of conscience the last memories of medicine, the better for the human family. You have embraced a calling that requires, and successfully to fellow, *demands* all the judgment, genius, perception and engrossed vigilance of your entire mind; and to give a halting, unwilling, distracted, pecuniary, hair-brained consent in following this our noble calling, is sacrilege in its worst sense, and deserves to have the tables of the money changers overturned and they be cast out of the temple.

What can be worse than being wedded to a profession which is constantly burning your soul. You are married, not mated, when the desire for divorce constantly haunts you, making your life miserable, except when dwelling on the sordid ends to be gained by it. Knock off the shackles and don't allow yourself to be dragged down by any false pride of position. There is a place for you; by all means find it; rectify your mistake, and leave the profession better for your absence.

These are some of the things which will unbend your bowed frame, and cheer with the happy joy of summer sunlight the way of your labor and love. Much of the pleasure derived in this life depends on the individual rather than extraneous circumstances, none the less of you. It often depends on the cornea we look through, whether the horizon look dark, blue, or bright. It takes but little coloring there, to mantle the world, and don't go to renovating the world while the fault lies on the proximal side of your visual organs.

Allow me in the few remaining moments of our interview, to give you two or three practical suggestions as to how you can avoid the failures and disappointments, and get the good.

In the "Pursuits of Literature" the advice is given to young men, "dare be ignorant of many things." I offer the same to you with this addition, "BUT NOT OF YOUR PROFESSION." Let nothing short of a perfect knowledge of our science satisfy you. Here is the master key to success. Herein you have your fortune in your own hands. In this you can diminish the distance between you and those whom the greater advantages of education or brilliancy of intellect the world would set before you. How CAN I do this? you ask. I have friends to make, business to attend to, the cares of a family—am distracted with anxieties for my patients, the wherewithal to keep life's wheels moving must be raised, and it seems impossible that I can give the needed time for the extensive reading necessary for such erudition. Every one of these reasons you enumerate why you cannot read, is

one of the most urgent I could offer for the suggested course. How can you make friends better than by gaining worthily the reputation of a thoroughly educated physician. How so well prepared for that business as with a mind plethoric with the experience and facts of the Sages? How care for a family so well as on the *funded* effect of knowing your business? Time is not wanting. You can have all the time you need, by subtracting it from your idle moments, and never miss it. Reading is relaxation from practice. It is the best and most interesting recreation for you in the world. Any of you can save one hour a day, and many of you at first, six, and not diminish the time for the duties or pleasures. You waste time enough if rightly employed to make you the greatest wisacres in the land. If the moments *needlessly* wasted in the life of every professional man were gathered together, some would be surprised to find one-fourth of their time idled away. If the books he *could* read and *does not*, were piled up at the end of the year for him, he would consider book cases a *tax*. No excuse on the want of ability to purchase the needed volumes. You can get them just as easily as you can get time to read them, and in precisely the same way. "In all your gettings get wisdom." It is this that will distinguish you, and raise you above the common level. It is this more than any quality of affability or brilliancy, that will secure you the respect of all good and intelligent people.

Cultivate thorough honesty and frankness in all your intercourse with patients and professional friends. What so becoming, so desirable in one who takes such a place in the affections and interests of those committed to him, as thorough *integrity* and *candor*. To have your patients feel that you are the unselfish friend and honest counsellor, the candid communicant of all, whether good or ill for them, will give them the kind of trust in you which will give your words the weight they merit. How much there is to admire and desire in one whose thorough integrity and candor are proverbial

qualities. The want of them *may* give you temporary reputation, or *delay* the necessary pang surely impending; but be assured it will not fail to injure you when the results of your match with death can no longer be concealed. *Tell them* the *truth* every time they ask for it. Let them know that their concerns are as sacred with you as with themselves, and make up your mind deliberately to die rather than betray them. You are very peculiarly related to your patients, and it becomes a part of your profession to guard their confidential communications as sacredly as you would the interests of your own soul. These often come when your manhood and every impulse of a generous nature enjoins upon you the strictest confidence; but there is one weightier than all, and that is your professional honor. Many a household has been rent asunder by the unwarranted indiscretions of a garrulous physician.

Be kind and cheerful with your patients—kind without offensively patronizing them, and cheerful without being light. How much it soothes the sharp pangs of suffering to have kind and gentle words from the sympathising physician. It makes his hand softer, to smooth and correct the shattered fragments. Every twinge seems lighter for these cheap sedatives. Your sympathy needn't unnerve your skill. You needn't gush into tears at every sight of suffering. That would be worse than none. Your first duty is to bestow your skill, and the next to give words of comfort. First stay, and then soothe. Kind and considerate sympathy is entirely compatible with the *highest* skill, and the coolest and most determined resolution. You can staunch the crimson flow with *one* hand, and have one left to chafe the aching brow. Don't let this sympathy be exclusive. Remember those whom you always have with you, as well as those who add to your income. Let it not be of the kind only shining when *gilded.* But *rather*, be a friend to those who need and cherish your kindness.

Then I might speak of and tell you how necessary industry

was to your good fortune; that "labor, the symbol of man's punishment, is the secret of his happiness;" of equanimity of temper under his vexatious troubles necessarily connected with your chosen life; of the incessant care you should exercise over your patients; and, in fact, occupy your hours instead of minutes, in their detail.

One thing more—don't change. Get your minds well fixed on a location for good and substantial reasons, and don't leave it. A floating, shiftless, undeciding, dissatisfied physician, is the most dilapidated, disagreeable, unprofitable thing I can think of. They act as though they were determined to have it all, and so circulate their valuable services. Birdofreedom Sawin, Esq., has it:

> "Change just for the sake of change,
> Is like these big hotels,
> Where they're always changing plates,
> And let ye live on smells."

I am admonished that as the weeks have passed rapidly away since our first meeting, so the few moments allowed me give but little time for telling you everything which experience intimates would be useful to you. It is all included in *Education*, *Honesty and Sympathy*.

The past has been to us a winter of unusual interest and pleasure, and the agreeable associations thus formed make the present parting the more painful. This, the twentieth annual session, has been the *most* prosperous our institution has ever known, more students having enjoyed its advantages than in any previous year; and it has been the constant remark of your teachers, that the attention and assiduity of the class, as well as their intelligence and scholarly attainments, conferred lasting honor upon it as a class and us as a Faculty. But this compliment, I would say, we cannot promise you longer than twelve months.

We feel, in sending you to the world as the representatives of your alma mater, we commit much to you. Not only are our interests, but those of humanity, are in your hands. We

say you are prepared for high and noble positions, and have solemnly pledged our faith for your qualifications. Shall we, shall the world be disappointed? Shall our cheeks ever feel the blush of shame for disgraceful deed by you, our beloved pupils. All the attentive months you have so patiently and willingly sat as learners before us, all the midnight hours you have scrupulously devoted to your intricate studies, all your manly faces answer no. You go out the largest delegation we have ever donated to the world, and you go at an interesting time of its history. Your services are needed on many a bloody field, where a brother calls you to staunch fraternal blood which his own hands have shed. Our patriotic and surgically-abused soldiery call on you to save them from those who *should be their friends.* Louder comes the call from the thousands whose freezing blood fastens their helpless bodies to the crispy earth, to save lest they perish.

To such as feel the calls of our blessed country paramount, who will take their lives in their hands and peril all for her, we say, go, and when the number so gone renders our services as teachers needless here, we'll close the doors of your alma mater, hang out the stars and stripes and follow you, while duty calls, or life remains.

Gentlemen, we part. For the very many acts of courtesy we have received at your hands, we would express to you our deepest thanks, and may the happy hours we have spent together, often come to us in after day thoughts, as fragrant incense burning upon the altar of friendship, ascending to the very heaven of heavens.

May your lives be the perfection of professional success, and draw from some truthful biographer, the glorious and undying commendation so worthily bestowed by the prince of historians, on the prince of earthly princes: "As long as he lived he was the guiding star of a great and noble profession, and when he died the little children cried in the streets."

Gentlemen, go; God bless you. Good bye.

EDITORIAL AND MISCELLANEOUS.

ABSTRACTS, COMMENTS AND REMARKS.

Conservative Medicine.—Prof. Austin Flint communicates to the *American Medical Journal* another of his trenchant articles on "Conservative Medicine," following out the same train of ideas suggested in the article reproduced in the last volume of this journal. This time he applies the principles of Conservative Medicine to Therapeutics. Conservatism with Dr. Flint is not "old fogyism," but enlightened Progress. It is the same thing which for many years the better class of practitioners, and some teachers, have been steadily acting in concert with—taking Rationalism as the guide, rather than bold Empiricism or grosser Dogmatism.

As a matter of fact, the majority of practitioners are far in advance of the text books, and many of the oral teachers. And the direction of this advance is in the general line of Dr. Flint's essay. Thus it is shown by a greater discrimination in the use of spoliative, perturbatory and debilitating measures, such as bloodletting, mercurialization, emetics, cathartics, and severe counter-irritation. It is shown, by an increased use of remedies, which are potent without damaging the organism, such as opium and other sedatives. It is shown by a greater reliance on hygienic measures. It is shown by more attention to alimentation, and by the earlier and more efficient employment of supporting treatment in all affections which tend to destroy life by asthenia. (*Op. Citat.*)

Many diseases tend, intrinsically, to recovery. Indeed, those often destructive, as pulmonary tuberculosis, manifest

the same to a most extraordinary extent. Affections of the skin, mucous and some of the serous structures, and of other parts not so immediately concerned in vital operations—oftenest diseased, are also most frequently spontaneously relieved. The internal immediately vital organs, the stomach, small intestines, liver, pancreas, and kidneys are, comparatively, not often acutely inflamed. The morbid products engendering disease by their presence are rapidly eliminated This conservatism of nature is strikingly illustrated in the frequent spontaneous limitation of inflammation—Pharyngitis not extending to the Larynx—Bronchitis of the larger tubes not extending to the capillary branches! Hypertrophy of the Heart! The scientific Pathologist, who is always conservative, will admire and reverence the fertile resources of nature.

The conservative physician "is content to do nothing when ignorant how to do good."

He does not resort to perturbating measures in uncontrollable diseases. He is expectant then, not as a passive spectator, but in the adaptation of therapeutical measures to circumstances as they arise. He refers not simply to the disease, as catalogued by nosologists, but to the condition of the patient. Formularies and routine are to him impossible.

He directs especial care to the vital powers, and supporting these (in the common, well understood practical sense) is his crowning trait.

Nevertheless, he is not timid in practice. He carries a lancet (very liable to get rusty, however,) and repudiates no agents which have power, but he uses them with nice discrimination. He is bold in the use of supporting agents, opium, quina, alcohol, &c., but equally resolute in forbearing to resort to potent measures, whenever active interference is not called for by the conditions of the case.

He recognizes that medicine is a progressive science, and is independent of creeds, dogmas and discipleship.

Briefly: Potent agents are never neutral, but must either do good or harm in proportion to their potency. Doubtful

remedies had best be abstained from, and the powers of life are to be assisted by remedial and hygienic influences, in enduring and triumphing over disease.

The rationale of inflammation is now very thoroughly understood; at all events, so understood that we do not expect to suppress it by diminishing the quantity of blood in the body, or by diverting it from one part to another, or by violent perturbatory efforts of any sort under a vague idea of shaking off the disease.

Yet conservative practice can accomplish vastly more than to abstain from doing unnecessary and harmful things. It can palliate, promote favorable modes of termination, obviate incidental evils, and favor removal of morbid products, sometimes even employing surgical methods, and all the time sustain the powers of life by anodynes, stimulants, tonics, nutriment. And these things call for boldness, resolution and perseverance.

Observe the modern practice in acute peritonitis, and contrast it with the old.

Observe the more judicious, discriminating use of the alteratives. The treatment of chronic inflammations by maintaining the body in the best possible condition by tonics, alimentation and hygiene. The pathology of the essential fevers shows that each has its special cause, and the first inquiry is: Do the present resources of our art enable us to control these diseases? So far as the periodical fevers are concerned they most certainly do.

Variola is combatted by vaccinia. Other eruptive and continued fevers, there are grounds for believing, are occasionally suspended or abbreviated, particularly typhus and typhoid fever. At the least, conservatism has led to the relinquishment of attempts to break up continued fevers by bleeding, emetics, cathartics, mercurialization and the like. These anti-conservative measures belong to the past.

The study of structural changes has thrown much light on our subject, but the prime source of the lesions observed underlies and precedes the earliest of visible changes.

Nature provides largely for organic diseases of important parts, by ample provision of surplus structure. Thus the physician can do much for diseases which he can not cure by preventing further progress of the lesion, and keeping the organism all the time in the best possible condition. The nearer this is to a state of health the less liability to an extension of the local affection.

"Functional" disorders are to be traced to their real cause, and the therapeutic indication thus traced, e. g. vomiting and diarrhœa in Bright's disease; morbid conditions of the nervous system in abnormal constitution of the blood, &c. Toxæmia may originate even epilepsy, and a vast number of local disorders, and its source is to be studied and the poison eliminated, or even the antidote sought.

Conservatism indicates the removal of morbid diatheses. It indicates both hygienic and therapeutic prophylaxis. Another object is to arrest disease *in limine*. The better understanding of pathology has limited the number of disorders supposed capable of "jugulation," but has given more positiveness and power in certain cases. The cure of disease (*cura*) is not to be confounded with its spontaneous self-limitation, by *post hoc ergo, propter hoc*, argument. It is no disparagement to medicine to admit that it has improved. Antiphlogistic measures are less used, although capable of beneficial influences when properly employed, particularly in certain inflammations, where the danger is immediate and not involving death by exhaustion of the powers of life: e. g. Laryngitis, Acute Meningitis, Capillary Bronchitis. Again, palliation both in curable and incurable diseases. We hear much less now-a-days than formerly about "locking up the secretions," or "cerebral congestions," from the use of opium and other anodynes. Palliatives conduce not only to comfort, but cure, by diminishing general disturbance and exhaustion.

Finally, conservative practice involves, pre-eminently, SUPPORT. During the progress of disease and convalescence, nutriment, tonics, &c., if need be, alcoholics, better serve to re-

store vigor of both mind and body. Modern practice is pregnant of results in this respect.

Typhus and Typhoid Fever.—The number of those who believe in the specific or essential diversity of typhus and typhoid fever is constantly lessening. They are the result of the same poison co-operating in influence with other causes acting upon individuals. One person, whose various excretory organs are in perfect order, resists altogether the pernicious effects of the poison, especially if exposed but a limited time to its operation. Another partially or imperfectly, the result being slight febrile or constitutional disturbance, or perchance, manifesting the symptoms of the slow, nervous fever of Armstrong.

Another still, whose intestinal excretories, particularly the patches of Peyer, are called into energetic operation by its local influence, will exhibit common typhoid fever—the enteric fever of Wood. And another, eliminating little or none, illustrates the potent impression of the typh *materies morbi* upon the brain and nervous system, or typhus. Or, again, it may ultimate in local lesion of particular organs, as of the lungs, in which case the local affection may overshadow all other manifestations. Or the long continued operation of the same causes may determine the closely allied, if not identical, disease, tuberculous deposit.

Diseases are not entities—least of all are typhus and typhoid. The material change which constitutes disease is the product of all the causes, whether internal or external, conjointly acting upon single organs or the whole system.

The therapeutics of the typh diseases from the mildest to the gravest, from the most acute to the slowest chronic, will be found reducible to the same general principles. Pulmonary phthisis and typhoid fever have a common parentage—concurrent causes determine the result.

There are no specifics for either. Expectorants in the one, or antiphlogistics in the other, though they may respectively

prove occasionally useful, are, so to speak, only accidentally so. We must refer to the causes in each individual case, and either remove them, or remove the patient from the sphere of their influence. Without this, medication, whether by antiphlogistics, or stimulants, or alteratives, is, at the best, but null.

Preventing further access of poison, we are to favor elimination and necessary tissue metamorphosis, according to the special indications. Repressing excessive action of any organ immediately involved. And then restore the proper constitution of the blood by nutriment, choosing simply the most easily digestible and that which is physiologically necessary. Whether tonics or stimulants are necessary depends wholly upon their favoring and energizing nutrition—a point which observation must determine in each individual. Alcohol may be required freely, or moderately, or not at all. "Starving a fever," and putting the tuberculous man on an exclusively farinaceous diet, are barbarisms now gone into desuetude.

The appetite is not a test of the want. The same poison, which in its most noticeable result engenders delirium or coma, in its first effect dulls the nerves responsive to the constitutional want. The man who feels cold is not freezing, but he who sleepily denies any sensation of cold whatever. Feeding the typhoid patient is one of the best methods of awakening the appetite for food. Mercurials, or even Terebinthinates, are among the worst.

All medication should be considered as merely subsidiary to the digestive and nutrient processes.

Dr. John Hjaltelin, of Iceland, says that the indications are:

1st. To prevent overcrowding in the farm huts and cabins as far as possible.

2d. To provide perfect ventillation by opening the windows, or making holes for the outlet of the vitiated air.

3d. To destroy every offensive odor about the sick, and even the smell of the sickness itself.

4th. To introduce cleanliness in every respect.

5th. To clean the bowels of the patient as soon as possible in an effective and perfect manner.

6th. To destroy instantly the odor of evacuations.

7th. To use disinfecting medicines internally in a bold and consequential manner.

8th. To support the strength of the patient by easily digestible but nourishing food.

Which rules are applicable the world over, as well as in Iceland.

Dr. Hjaltelin, naively but most sensibly, remarks:

"It seems to me that many physicians are too much afraid of using nourishing diet in typhoid fever, forgetting the great loss of nitrogenous compounds which this sickness, by the large excretion of urea, produces. I have seen many typhus patients in this country, who, as soon as they were able, took very nourishing food, which would never be allowed in the hospitals of Europe, recover speedily; and comparing this fact with the languishing and protracted recovery in the hospitals, I conclude that nourishing food in the latter stages of this fever is quite indispensable."

Commence earlier with your "nourishing food," good Dr. Hjaltelin, and your heart shall be still more rejoiced at the result!

Hypodermic Injections of Morphia.—Dr. Lerick, of Philadelphia, reports to the Phil. Coll. of Phys., the use of Hypodermic injections of Magendie's solution of morphia (gr. xvj to f ℥ j) in a case of excessively obstinate neuralgia of the thigh and leg, supervening on myelitis. Fifteen, gradually increased to twenty-eight, minims were injected each time; sometimes only at night, sometimes twice or three times a day. The treatment was continued for five months. All other treatment was gradually abandoned as useless. In five minutes the patient, who was previously in an agony of suffering, would be perfectly relieved. No unpleasant sequelæ resulted. He does not hesitate to recommend the method as a very valuable addition to our means of medication. Similar injections have been recommended in delirium tremens, tetanus, mania, chorea, paralysis, &c., and they illustrate the

fact that the anodynes have a powerful influence in controlling nervous disorder, even thus irregularly applied. We trust there will be no indiscriminate resort to them. Occasionally abscesses are the result. Sometimes, not infrequently, nausea and vomiting. The narcotic effect is not readily controlled, now and then there occurs profound impression, and again from even a larger amount very little or none.

Still in obstinate cases this method of application is worthy trial. Where temporary or permanent causes prevent ordinary methods of exhibition, or it is sought to impress at every point. So in metastatic pain; in surgical cases; but especially where pain is distinctly local and chronic. Practically it is best to inject directly upon the most painful point, although some, from theoretical considerations, prefer to apply the medicine at the trunk of the nerve whose branches are specially involved. By the by, an appropriate instrument has yet to be invented for this little operation. Those we have yet seen are often imperfect at the first, and always after having been used a few times. The little ones, guaged for sundry minims, in a short time infallibly draw air from above, rather than the narcotic solution through the fine tube from below. All the vulcanized rubber syringes, although the tube remains intact, speedily give way at the soft packing of the piston. Can not this be remedied?

It is a little noteworthy that in about all the cases reported where hypodermic injections were resorted to, almost as the last hope of relief, the efforts of the physician have been directed to finding some specific remedy, apparently guided by the idea of *functional* (*quasi* spiritual) disease. Little is said of efforts to restore a healthy composition of the blood. Good healthy blood is the best healing lotion for even "functional" diseases.

Trismus Nascentium. — Greenville Dowell, M. D., of Texas, in the Am. Journal, concludes from considerable

experience and observation that *Trismus Nascentium* is produced:

1st. Most frequently from improper management of the cord, and congestion of blood in the umbilical vein; from this vein congestion spreads to the liver, and it becomes swollen and filled with dark blood, and the secretion of bile is entirely arrested.

2d. The next most frequent cause is the displacement of the occipital bone in parturition. We may always look for this cause in protracted labors.

3d. The retention of the meconium, and want of properly cleansing the skin when the child is first dressed.

4th. And lastly, it may be produced by any cause that will produce tetanus in old persons. Cold, exposure to drafts of cold air; foul odors, &c.

It generally comes on from the fifth to the twelfth day, most frequently the ninth. After three weeks he considers the child safe. In treatment he refers to the cause. If from displacement of the cranial bones, as suggested first by Dr. Sims, he removes it by position; if the occiput is at fault, on the side; if the parietal, on the back. Does not allow the position to be changed even during nursing.

Originating from the umbilicus, he rubs the abdomen with an ointment of Hydrarg. Protiodid gr. x to ʒj of Lard, giving internally from one to five grs. of Calomel. Opiates, Assafœtida, &c., appear to do no good. The warm mustard bath nearly always temporarily relieves the spasms.

The third and fourth causes indicate with sufficient clearness the proper remedies.

Proper management of the cord at birth he thinks of the very highest importance in the disease.

With regard to the second cause referred to by Dr. D., or Sims' disease as it might be called, we refer our readers to an article by Dr. Brainard, in this Journal, vol. V. (1862) p. 4." "Tendency to a Vacuum in Cerebro-Spinal Diseases." The cause is seen to be a feeble action of the heart, or a peculiar modification of the respiratory movements, or both. A strong inspiration tends to exhaust the cerebro-spinal cavity,

and hence the overlapping, when the laryngeal aperture is partially or wholly closed. Of course some cases are produced during a severe parturition by the great pressure applied to the head of the child naturally, or it may be by use of extracting instruments.

But why do these cases occur more frequently South than North?

Puerperal Convulsions.—In the proceedings of the Cincinnati Academy of Medicine, reported in the *Lancet & Observer*, we find a discussion on the subject of Puerperal Convulsions, which strikes us, in the main, as scarcely creditable to that enlightened emporium of medical science. The subject was introduced by J. H. Tate, M. D., who read an essay upon it. Dr. T. called attention to the facts that ninety per cent. of the cases occurred in women not broken down by child bearing, or any cachexia; that the disease is almost invariably accompanied by albuminuria; that the eclampsia is very commonly attended by œdema of the legs, hands, and often of the face; that, fourthly, hundreds have been successfully treated by bloodletting and purgatives; fifthly, that choloroform has, recently, in quite a number of cases, proved successful; and finally, that in some cases a rapid emptying of the uterus has been followed by an early cessation of the convulsions. The disclosures of *post mortem* examinations have been unsatisfactory. Hence the writer concludes that bloodletting is the chief remedy, adopting "the views of Meighs and Tyler Smith (?)" The essayist observes:

"In entering upon this task, I have experienced some of the feelings of the lover of nature, who goes forth at twilight to survey the beauties of the night. As gem after gem, and constellation after constellation, rise up in splendor before him, his eye kindles with a deeper and yet more profound emotion, until at length he is overwhelmed and lost amid the grandeur and extent of the universe of God."

Then follows a case by Dr. Carroll, which was bled and died; then a case by Dr. Smith, which was bled and died.

Upon which Dr. Fries recommended bleeding from both arms and delivering by the forceps while the blood was flowing. Dr. Carroll objected to chloroform but endorsed the blood letting. Dr. Richardson believed in chloroform, but had more confidence in bloodletting as a preventive agent, "to remove pressure from the brain." Dr. Murphy had seen three cases, the first was bled and died; the next two were not bled and lived. He (most sensibly) urged the facts of uraemia. Dr. J. B. Smith said:

"Women during pregnancy do not bear a large loss of blood without detriment. There is a physiological condition during menstruation when she loses a certain amount of blood. During pregnancy it is used in the development of the fabric of the child. He took the position and believed it, that unless there was an arrest of development of the child or the uterus, there is no excess of blood. As a remedy for puerperal convulsions, does an excess of blood about the spinal cord indicate bloodletting? His patient died after the last bleeding. Would every drop of blood drawn have relieved her? You must remove the exciting cause. The best authors, as Tyler Smith, Braun and others, are exceedingly cautious about bloodletting, and he would be when œdema was present, indicating albuminuria."

Dr. Fries said nineteen out of twenty women at the seventh, eighth and ninth months will have an œdematous condition of the extremities. This was due, not to the uræmia, but to pressure on the lympathics of the pelvis. Did not believe in poisoning of the blood. Had bled hundreds in such cases with benefit. Pregnant women bear bloodletting well. You could not wait for stimulants or antidotes, but should bleed irrespective of poisons in the blood. "He would open a vein, apply stimulants to the extremities, ice water to the head, etc. In fatal cases, post mortem examinations reveal effusion around the base of the brain or a clot."

Dr. Murphy took grounds against extreme bloodletting and extreme anti-phlogistic treatment. In the Commercal Hospital the treatment of the disease was as successful now, as in the days when bloodletting was practiced largely. Did

not believe the doctrine that pregnant women bear blood-letting well. Excessive bloodletting would produce anæmia and convulsions.

Dr. Fries reported a case to which he was called since the commencement of the discussion. He had bled her largely and she died. Would treat a similar case in the same way. Subsequently he inveighed against the New York practice of producing abortion in albuminuria, and said that the theory of albumiuaria or uræmia being the whole cause of puerperal convulsions is a humbug.

Dr. Richardson did not believe there was any one plan of treatment in puerperal convulsions. Favored chloroform, and believed that blood-letting was useful only when there was a rigid, unyielding cervix and os uteri. Bloodletting in advance would be detrimental.

Dr. Murphy agreed with Dr. R. "He was asked how many women he had bled? He said very few. Who bleed now, except such persons as cannot treat typhoid fever without purging and salivation? We cannot bleed these women or give heroic doses of medicine." He could not treat his patients as the older authors taught, simply because they could not bear it. Those who have read the recent investigations on the white kidney will not think so strange of producing abortion in cases of albumiuaria. We have come to know an inflammation is a state of hyper-nutrition.

Dr. Carroll has bled hundreds of cases of typhoid fever. "He bled them because in the outset there is local difficulty in the brain. He had practiced more than forty years, and he never gave stimulants in typhoid fever in the first ten days. If there is congestion of mucous membrane stimulants would increase it. He would rather act quietly on the secretions; and this was the opinion of the best men in the profession. Believed there was not a man in the Edinburgh School who was not a hypocrite. Cullen was the only man, he believed, who kept himself clear. Why must you not bleed in effusion, in œdema! You take a case of dropsy following scarlet fever, when there is danger of convulsions; you will almost always save the patient by bleeding. If you bleed, you re-

lieve the brain. In all cases where the kidneys do not act well, you cup, leech and purge, and you bring on healthy action; by bleeding you lessen the amount of fibrin."

Several of the participants in the discussion spoke with contempt of "reading doctors." It is very clear from their reported remarks, that they have none of that Christian virtue which teaches contempt of self. The "reading doctors" have very small confidence in blood-letting (and very often none at all) in eclampsia. The "non-reading" doctors have bled hundreds of cases, and propose so to continue notwithstanding their patients about invariably die.

But Dr. Carroll caps the climax by saying that not only does he bleed in eclampsia, in fact has bled in hundreds of cases, but that he bleeds in the outset of typhoid fever, "because there is local difficulty of the brain!" *Ohe! jam satis!*

And Dr. Carroll believes that "there was not a man of the Edinburgh school who was not a hypocrite." Evidently Dr. Carroll is not of the despised class of "reading doctors."

It has been well said that a physician should never abandon his care of a patient until he is absolutely dead. And why? Simply because in occasional instances, while the patient seems now in the moribund state, destructive changes will cease a little before those processes which are immediately necessary to the continuance of life. On the cessation of these destructive changes, commonly almost coincident with death, there will sometimes commence recuperative action and convalescence steadily advance. Who has not seen this in cases of, for instance, enteritis, where there has been the usual spasmodic contraction of the intestine? In laryngitis, in meningitis, and many other diseases? A crisis? Certainly a crisis—but one in which Death is the physician. A crisis not to be imitated by art, but to be shrunk from, and avoided by all the appliances of art. This is the kind of crisis which is more dangerous than disease, but which, unfortunately, when one case has happened to escape, has been made the

excuse for multitude murders. (For the details of at least one such case, see Paine's "Institutes of Medicine," (Appendix) Pp. 871 and 872, § 1068 d, where the patient was pushed to the death crisis by a blood thirsty dogma, and yet recovered.) Cases involving spasmodic action are especially illustrative of this state of affairs.

This will explain why it is that the Bloodletters always insist, if the patient dies, that he or she was not bled enough. It is true, even as they say—they were not bled enough! If they had been bled until the *death-crisis* came, possibly they might have recovered, but how many will die?

It occurs to the present writer, that there is no warrant in all medical experience, or even in medical theory, for this murderous use of the lancet. Statistics, all experience, the enlightenment of the age, and common sense, stand arrayed upon one side, and upon the other side, cases like Dr. Paine's, (§ 1068 d), which escaped both Death and the Professor, and Dr. Fries', which did die, but illustrated the excellence of the treatment even while so doing.

The simple fact is that blood-letting is a sedative agency, but one rapidly exhaustive in character, and hence liable to objection, in particular cases, which may not weigh against other sedatives. That it is not pre-eminent as a sedative, is proven by the facts of every-day experience. That it is practically inconvenient, unnecessary and liable to result injuriously, is so patent that the lancets of the bloodthirstiest bleeders are everywhere (*nolens volens*) getting rusty from want of use.

In puerperal convulsions there are two prime indications: First, to control the paroxysm. Second, to remove the cause. The cause may be uræmic or reflex, each involving change in the molecular structure of the nervous system. Extravasations, clots, congestions, effusions—these are results, not causes. Pressure is not a cause, it is a result. Bloodletting in these cases, save for its sedative influence, is an absurdity.

Sedatives, anæsthetics, anodynes—these are what fulfill the first indication.

The second may require diuretics, cathartics, or other eliminating agents. It may require tonics, nutriment, alteratives. It may necessitate speedy abortifacients. Nature may and often does provoke this action spontaneously. Art should be her minister and interpreter. It is idle under these circumstances to indulge in canting, milk sop platitudes about the "terrible practice of New York," or any other place, in this regard. It is a question simply of one life or two. It is a question which does not need discussion, save in those countries where it is gravely proposed always to sacrifice the mother rather than the child. It is not a question for this age or this country.

Spoliative blood-letting, however great its claims, when other or less disastrous sedatives were either unknown or not understood, is out of place, save in exceptional instances,—in puerperal convulsions, or, briefly, in any known form of disease.

Lancing the Gums in Dentition.—From a review of Dr. Jacobi's recent work on Dentition, (Amer. Med. Monthly,) we extract the following judicious observations:

While we are on the topic of 'lancing the gums,' a word may not be out of place as to the *modus operandi* of the relief obtained by incisions. The growing tooth is enveloped by a saccular membrane, continuous with the periostem which surrounds the neck and fang, and secretes (afterward) the cementum. This dental periosteum is a highly important structure, well worthy of far more study than it has received. All judicious dentists recognize and respect it, for they know how highly vitalized it is, and how fruitful of mischief it becomes in disease. It is to this organ that are due those long-continuing and deep-seated facial neuralgias, which, like many more obscure symptoms of nervous derangement, are often suddenly and permanently relieved by extracting a diseased tooth. Now this membrane, so powerful in the adult, and so persistent in its bad effects, but so easily deprived of all harm-

ful power, is the inclosure within which the growing tooth is formed; and surely it is no stretch of credulity to believe that any fault or imperfection in this delicate process may as readily disorder the extremely sensitive nervous system of a child as may another form of diseased action in the same organ disturb the action of the adult system. The purpose, therefore, in cutting, is to relieve any undue tension of this membrane, and to do this, of course the knife must penetrate to the tooth. Prof. J.'s fancy about *scratching* the enamel is one of those points which show that his lectures are based more on theory than on observation. Frequently, as was the fact in the case above related, the relief is required and obtained by incising, some time before the tooth finally appears through the gum. The Professor may disdain the term, but the nurses are not so far out of the way—disturbance frequently occurs when the teeth are 'breeding.'

It will be very difficult to convince practical men, however it may be with mere theorists, that free incisions in the swollen gum do not frequently afford immediate relief, not only to local pain but also to more or less severe symptoms of a reflex character, having their starting point in the great local disturbance of nutrition of the dental nerves.

Cause of Epidemics.—Dr. Jas. Galbraith suggests that as decomposing organic matter upon the surface of the earth may generate gases productive of endemic or sporadic disease, so may gases arising from the underlying formations become the exciting cause of various epidemics, or result in change of the general constitution of the air, varying the type of existing diseases. Volcanic action, earthquakes, etc., may liberate noxious gases, not only where they are immediately observed, but at great distances, disturbing the crust of the earth and contaminating the atmosphere, the waters of springs and rivers, etc.,—thus influencing powerfully the conditions of human life.

Pertussis.—Dr. J. B. Luden (*Penn. Transac.*) recommends in hooping-cough the following mixture, which has proved to him the means both of alleviating, and cutting much shorter

the whole disease: ℞—Ext. Belladonnæ, gr. iij; Infus. Ipecac ℥ iiiss; Sacch. Alb. ℥ iij; Aq. Amygdal ʒ ij—℥ ss. F. M. From half to one teaspoonful three or four times a day for children.

Biennial Report of the Board of Trustees of the Michigan Asylum for the Insane, 1862.—This Asylum is located at Kalamazoo, Mich., and is under the Superintendency of Dr. E. H. Van Deusen, formerly of the Utica (N. Y.,) Asylum. The report shows 155 patients under care Dec. 1st, 1862. This is the foundation of a model insane asylum, and under the wise and sagacious charge of Dr. Van Deusen, who is a model Superintendent, it is achieving a high reputation everywhere. We are exceedingly gratified to hear that the State Legislature has, the present session, appropriated $60,000 to enlarge the capacity of the asylum, and thus promote its further usefulness. The Peninsula State is to be congratulated.

Debility and Diarrhœa of Soldiers.—Rufus K. Browne, M. D., Surgeon in charge of the U. S. Marine Hospital recommends (*Med. Times*) in debilitated but not particularly anæmic state of patient: ℞—Cinchon. Rubr. ℥ ij; Anthem. ℥ ss; Fl. Ext. Gentian. ʒ ij; Tr. Aurant. Cort. ℥ ij; Sodae Bicarb. ʒ ij; Aq. ʒ xxxij. M. Boil twelve minutes and strain. D. Half a teacupful every two hours. He sometimes substitutes Tinct. Colombo or Quassia for the Anthemis. If the patient be greatly enfeebled, as the result of protracted sickness or diarrhœa, he orders each dose of the above to be followed by an ounce of Santa Cruz or Jamaica Rum with five grains of Ginger. Or if anæmic withal, administers a grain of Pulv. Strychnos nux. vom. and five grs. Pot. Tart. Ferri. He believes the latter the most energetic replenisher of the active elements of the blood.

To abbreviate the chill in periodic diseases, he orders an ounce of Rum, with four gr. Capsic. and three of Ginger, in *hot* water. A mixture of Squills and Verat. Virid. has been

found useful in pneumonia and other affections where the pulse is high. By it, he says, "you rapidly modify the circulation, but there its efficacy ends."

A solution of veratria in glycerine is convenient and efficacious in removing superficial pains.

As an "unfailing and undisturbing evacuant, he directs: ℞ Ol. Ricin. Com. ℥ ss.; Ol. Olivœ ℥ ss.; Ol. Tiglii gtt. j; Es. Ol. piper. menthæ gtt. iv M. Or, according to indications, Calomel may be preceded or added to it. He prefers this combination to the salines in treating military diarrhœa.

Where salines are used, he prefers the Tartrate of Soda; and where there are fæces in the large intestine he commends: ℞ Aloes Socot. gr. xx; Acid. Sulph. dilut. gtt. x M. f. p. IV. One to be taken every hour until discharged. "However long the constipation, this will always relieve the bowels with very little or no sense of its *effect*."

I have sometimes arrested the continuance of this exhausting form of diarrhœa, when every other article in the hospital dispensary had failed, by

℞ Pulv. resinæ communis gr. viij. or x., given in water, pulv. acaciæ, or even powder of arrow-root may be added to this, if the discharges are streaked with blood.

In that case also the following:

℞. F. ex. gentian. ʒ ij. F. ex. senegæ ʒ j. Syr. ipecac ʒ ij. Gum. acaciæ ʒ i. Aquæ ℥ ij. M. A teaspoonful every two hours. The senega is a restorative; *how*, I do not know. I have invariably found it a useful adjunct in tonic mixtures. The nearest a uniformly efficacious diarrhœa powder, and generally efficacious where the diarrhœa has not been long uninterrupted, is ℞. Pulv. gum. acaciæ ʒ ij. Cretæ prep. ʒ j. Pulv. kino ʒ i. Pulv. ipecac. gr. v. Div. in p. æq. No. xx., one after each discharge. This with mucilaginous drink, where there is torpidity of the bowels, in the highly enfeebled, if we suspect but little fæcal contents, and dread any disturbance of the system, and the stomach and perhaps bowels are weak.

℞. Ol. ricini ℥ i.; Ol. morrhuæ ℥ ss.; Gum. acaciæ ʒ ij.; Aquæ menth. pip. ʒ iv.; Tr. opii gtt. xl.; Spts. terebinthinæ gtt. xxv. A tablespoonful every two hours. It is particularly useful where there had previously been intestinal capillary

hæmorrhage, or where there is continued intestinal torpidity, and the patient is confined to his bed.

In moderately reduced states of the system, where there is almost a daily recurrence of slight febrile symptoms without rigor, give ℞. Tr. serpentariæ ℥j.; Tr. rhei ℥j.; Tr. zingiberis ℥j.; F. ext. valerian. ʒj. Tablespoonful every two hours. The nervine in combination with the ginger is a particularly kind but efficacious queller of the febrile temper. I have never found any particular benefit from serpentaria alone. Of that and in such a case the tincture is better than the infusion. For immediate and entire subsidence of flatulent colic or pain, ℞. Liquor, ammon., Chloroform—*aa.* gently rubbed over the epigastrium is particularly efficacious.

Nostalgia.—Surgeon D. C. Peters, in the *Medical Times*, gives the following picture of this remarkable disease:

That peculiar state of mind denominated nostalgia by medical writers, is a species of melancholy, or a mild type of insanity, caused by disappointment and a continuous longing for home. It is frequently aggravated by derangement of the stomach and bowels, and is daily met with in its worst form, in our military hospitals and prisons, and is especially marked in young subjects.

The symptoms produced by this aberration of the mind, are first, great mental dejection, loss of appetite, indifference to external influences, irregular action of the bowels, and slight hectic fever. As the disease progresses it is attended by hysterical weeping, a dull pain in the head, throbbing of the temporal arteries, anxious expression of the face, watchfulness, incontinence of urine, spermatorrhœa, increased hectic fever, and a general wasting of all the vital powers. The disease may terminate in resolution, or run on into cerebral derangement, typhoid fever, or any epidemic prevailing in the immediate vicinity, and frequently with fatal results. Among young prisoners of war it is the worst complication to be encountered, as the writer can truthfully affirm, after a few months' experience in treating several hundreds of these prisoners under the most favorable circumstances.

Fresh troops serving in the extreme South, where mail communications are irregular, and where the climate is very debilitating, suffer terribly this affection. The hospital of New Orleans and its vicinity, during the past summer, were filled with such cases, complicated with fevers and diarrhœa. The

majority of them were young men from the Eastern States, whose love of home and kindred is a characteristic trait.

The diagnosis of nostalgia is not difficult in its early stages, although the patient may be unwilling to confess his mental weakness. It may possibly, however, be confounded with a depressed state of the mind, resulting from unexpected and sad intelligence.

The treatment of nostalgia would appear very simple, could we always at its onset remove the exciting cause, by allowing the patient the free exercise of his will; but from obvious reasons this is usually an impossibility. The strict rules, usages, and exigences of military service are insurmountable barriers against granting too free indulgence to soldiers. The surgeon must carefully attempt to relieve the patient's mind of its injurious burden by other means, such as kindness, free exercise, bathing, and agreeable associations, while he improves the tone of the stomach and bowels by generous diet and tonics. In cases where complications exist, notwithstanding his zealous efforts, the symptoms will frequently baffle his skill, and then as a *dernier resort*, and in order to save life, or prevent permanent disability, he must recommend the man's discharge from the service.

Bromide of Potassium in Ovarian Tumor.—Dr. P. Stewart. of Peekskill, N. Y., reports in the *Reporter* a case of trilobular ovarian tumor, each lobe two-thirds the size of a child's head at birth, successfully treated by Bromide of Potassium. Three grs. gradually increased to eight grs., were directed to be taken in Comp. Syrup Sarsaparilla three times a day—to be continued without interruption for a year. Improvement commenced in two months.

Diagnosis of Malarial Diathesis—New Test Symptom.—Our contemporary of the *Boston Medical & Surgical Journal*, publishes a paper placed in the editor's hands by Surgeon General Dale, of Mass., to whom it was communicated by Surgeon E. C. Bidwell, of the 31st Mass. Volunteers. This paper purports to give "a *new pathognomonic symptom of the malarial diathesis.*"

After alluding to the frequent difficulty in diagnosis in these cases, and nevertheless its importance, he describes the symptoms:

It is a very peculiar and abnormal appearance of the tongue, in which its under surface appears to have trespassed upon the upper, the *papillæ* of the latter being supplanted by the transverse *rugæ* of the former. The sides are thickened and rounded, the normal well-defined edge being obliterated, and the line of demarcation moved nearer to the mesial line. This appearance of the sides may be associated with any and every possible appearance of the remaining papillary surface, clean or coated, thick or thin, light or dark, just as the malarious disease may be attended by any and every variety of morbid condition of the system. Through all this variety it is perfectly distinct, and, when once learned by actual inspection, is unmistakeable.

Wherever I find this malarious tongue, whatever other symptoms and conditions may be present, I give quinine freely and confidently. So much confidence do I place in its indications that, when it is present in complicated or obscure cases, I make all other treatment wait upon quinine as the first and indispensable remedy. On the other hand, when in charge of a regiment, if soldiers came to me complaining of "chills," whose tongues did not present this appearance—telling the truth to the eye while they lied to the ear—they were unhesitatingly returned to duty. I am confident that in judging by this criterion of more than twelve hundred cases during the last season, I have never wronged more than two men, and those not grievously. In those two cases, I am obliged to confess, it was but faintly developed. Both were mild cases of simple intermittent.

We call our contemporary's attention to the fact that this is by no means a *new* symptom, as it most certainly is not a pathognomonic one. In a communication to the *Western Jour. Med. & Surg.*, Aug. 1851, (reprinted in the *American Journal of Med. Sciences*, Oct., 1851, p. 555), Dr. Thomas C. Osborne, of Erie, Ala., points out this same symptom. We extract a single paragraph from his article with regard to what he designates, "the *malarial margin*:"

"As the name imports, it is an essential departure from the normal aspect of the edge, constituting a distinct lateral

boundary of the tongue, occupying more or less surface, according to the charge of infection in the system. Ordinarily, the color amounts only to a very faint bluish tinge, which is liable to be lost, or merged in the various tints imparted to the tongue in various diseases. The most fixed condition of this symptom is an appearance of indentation or crimpling transversely, which is apparently confined to the subjacent tissue, while the superficial integument is moist, smooth, and transparent. In a word, it seems to be a continuation or encroachment of the inferior surface upon the superior and lateral borders of the tongue, greater as we approach the root of that organ."

Dr. Osborne attributed great importance to this condition of the tongue as proving "malarious," poisoning, and as indicating the use of quinine. He asserted that he was able, by observing it, to predict an attack of malarious disease, many days before its occurrence.

Largely familiar as we have been with the multiform varieties of intermittent and remittent, we must be permitted to say, that although this condition of the tongue is quite common in these forms of disease, yet it is by no means constant, even in the most strongly marked cases. In these, as elsewhere, the tongue is prone to deceive. It is an occasional, but not a pathognomonic symptom.

The American Medical Association.—There is a vague rumor that the Committee of Arrangements or some others in authority propose to call a meeting of the American Medical Association the ensuing season. We fervently trust no such stupendous folly will find birth at present. The reasons previously existing for non-assemblage of that body are tenfold more powerful now than at any time during the previous two years. The matter is beyond argument. Do the gentlemen of the Committee propose to recognize secession as a *fait accompli?* Or do they propose that the fragment shall assume to be the whole? There is no conceivable reason why the Association should be called together, unless per-

haps to familiarize the professional as well as the public mind with the idea of a divided nation. We repeat we trust no such absurdity as rumor indicates will be perpetrated by the Committee. Let the State and other local societies be fully sustained, but let the national representative body of the profession wait for return of the halcyon times of peace.

Miscellaneous.—The Cincinnati *Lancet & Observer* confounds the CHICAGO MEDICAL JOURNAL with a city cotemporary. It says it has not received a number of this journal for two months. Singularly enough, in the same No. of the *Lancet*, is noticed a case reported in this journal the month previous, viz: Dr. Holmead's case of Cœsarean Section. It argues that this journal is delayed in publication in consequence of pecuniary embarrassment. This is by no means the case, and has at no time been. The delay of the Jan. No. was simply on account of sickness of the editor. We issue the JOURNAL during the month named on the title page, not imitating the secular monthlies by anticipating the month. The February No. is delayed one week from the same cause.

Our thanks are due Dr. Wardner for copies of the *Mound City Hospital* regulations.

In a recent case of trial for mal-practice, where it was attempted to show that *paralysis* resulted from *inhalation of Chloroform*, the jury found a verdict for the defendant. Prof. S. D. Gross, in his testimony on cross-examination, said: "Chloroform, like many other agents which a physician is obliged to use, is dangerous; so is laudanum, &c.

Question. If improperly used would it not produce paralysis?

Answer. No, sir.

Ques. Would it be improper to continue the use of chloroform after a patient has resisted its influence for nearly three quarters of an hour?

Ans. No, sir; I should continue for five hours, until I accomplished my object; I have taken chloroform myself; a patient who resists, only proves that he has not taken enough."

All of which may perhaps be steadfastly believed; nevertheless it is difficult to understand why this most potent of anæsthetics may not produce local disturbances which may ultimate in paralysis. The patient in this case had been injured some time previous by a fall on the head. This accident probably determined the special effect—paralysis—culminating on the use of chloroform.

Medical Director J. V. Z. Blaney, with Surgeons Stoker and Huntington, have been designated as a board to examine into the professional, physical and moral qualifications of such medical officers as the authorities of the Seventh Army Corps, (Department of Virginia,) may direct. We extract from the detailing order:

"While many are discharging their responsible duties in a creditable manner, a few have obtained positions in the army without the proper qualifications. The well-merited reputation of the efficient ought not to be compromised by the incompetent. The welfare of the sick and wounded and the best interests of the service demand that all such should be promptly removed."

We have it from the best authority, that of the large number who have presented themselves for examination before the Board at Washington for examining candidates for Brigade Surgeons, (now Surgeons of Volunteers), *sixty per cent.* have been rejected. There are now three hundred vacancies in the two grades. We suggest to some of the graduates of Rush Medical College to present themselves before the national board. We have heard it intimated that the Faculty of Rush are willing that their graduates should go before the national examining board, or any other board not committed, shoulder deep, to the interests of some petty rivalry or clique.

Dr. Morton (with a considerable proportion of the alphabet prefixed to the surname) is again before Congress with a petition to be rewarded for introducing anæsthesia in surgical operations to the world.

Toxicological. It is suggested by M. Toscani that great

care should be taken whenever salts of iron or mercury are being administered, not to give, contemporaneously, preparations containing hydrocyanic acid, (as for instance essence of bitter almonds,) since dangerous compounds are liable to be generated in such mixtures.

Tannin is recommended by Prof. Kurzak in cases of poisoning by *Strychnine*. Twenty or thirty times as much tannin should be exhibited. Vegetable acids and alcoholic drinks are to be avoided, on account of their increasing the solubility of the strychnia precipitated by the tannin.

Dr. Tschepke reports a case where a druggist's clerk took between eight and ten grains of Nit. of Strychnia, followed a little later by an addition of ten grs. Half an hour later having experienced no effects, he took ten grs. of Acet. of Morphia dissolved in an ounce of bitter almond water, and then lay down in bed. Ten minutes after he turned a quantity of Chloroform on his pillow to hasten his death. He lost consciousness for a short time, but soon revived, had convulsions several times, and itching of the nose and limbs.

Before taking the poisons, he had eaten freely of a sort of soup composed of cranberries and flour. Probably the tannin of the former partially neutralized the strychnia, whilst the farinaceous matters prevented absorption. The morphia may have proved to some extent antidotal.

Some spontaneous vomiting occurred, which was maintained actively by emetics of Ipecac and Antim. Two days afterwards no trace of the poisoning remained.

Prof. Anderson, of Glasgow, enumerates nine well determined substances obtained from Opium: Narcotine, morphine, codeine, paparerine, thebaine, narceine, meconine, meconic acid and theobslactic acid; besides three doubtful—pseudomorphine, porphyroxine and opianine.

Minor Surgery.—A threatened *furunculus* may be easily aborted by subcutaneous section with a fine knife. But one

In searching for *bullets* lodged deeply in the body or extremeties, the ingenious method suggested by M. Nelaton in examining the wound of Garibaldi is worth bearing in mind. A probe was so contrived as to bring away particles of the lead if met. An olive-shaped body made of unpolished china was fixed at the end of a common probe. The least contact of this with the lead left a stain which the fluids present would not obliterate. "With this instrument, Prof. Zanetti became so certain of the presence of the ball in Garibaldi's ancle that he forthwith extracted it."

Good strong *horsehair* is found to serve excellently well where fine *sutures* are required as in operations or wounds sbout the eyelids or scrotum. They are quite indestructible aperture need be made through the skin. Through this the indurated portion may be thoroughly transfixed and cut across in every direction. Or a second puncture may be made and another complete section of the diseased part made at right angles with the first. After the bleeding has ceased the skin should then be painted with collodion. The operation is almost painless and the cure about certain.

An enlarged *bursa* had best have its contents discharged by a fine trochar and canula, and afterwards be injected with a solution of Iodine in Iod. Pot. and water. Some little caution may be advisable in very large bursæ to avoid inflammation, but rarely is there any considerable local or general disturbance. A single operation generally is sufficient to the cure.

Among the vast number of methods resorted to, to abort threatening *whitlow* or *thecal abscess*, we have found none so uniformly successful as blistering the part with Cerat. Cantharid. The vesicant should extend some considerable distance beyond the point involved in inflammation, The blister alleviates the local pain so remarkably as usually to be very grateful to the patient, and rarely fails to arrest the progress of the disease. The free incision so commonly recommended is always very much dreaded by the patient, and is only occasionally successful in relieving the disease.

and unirritating. They maintain their elasticity better than the fine silver wire, and are more easily removed when wished. They will be found very advantageous in scalp wounds, where it may happen suture is unavoidable. But all sutures about the scalp should be avoided if possible, as they always endanger erysipelas.*

Prof. Bedford's Principles of Obstetrics.—As predicted in our notice of this invaluable work last year, it has speedily passed to its third edition. This is evidence of a practical sort to Prof. Bedford that his *labors* are appreciated by the profession. Both at home and abroad, this book stands, deservedly, at the head of all treatises on the subject. We again commend it to the libraries and perusal of all our readers.

Diphtheria.—Dr. Isaac Winans recommends in Diphtheria: After evacuating the bowels with some mild laxative, the following course: ℞—Tinct. Ferri Muriat. ʒ iij; Acid. Hydrochlor. ʒ j; Aq. Destill. ʒ ss. M. S. Apply to the fauces with a brush or bit of sponge once in six or eight hours until the diphtherious deposit is removed. ℞—Take of the above mixture ʒ j; Aq. Fontan. ʒ ij. M. L. Take a teaspoonful every two hours. If there is debility, add Sulph. Quinine gr. j every second portion. ℞—Chlorat. Potash. ʒ j; Aq. Font. ʒ iv. M. S. Take a teaspoonful every two hours, alternating with the above.

Apply Spirits of Turpentine to the throat externally.

Prof. E. N. Chapman, of the Bellevue College Hospital, ignores about all local treatment in Diphtheria—relying solely upon constitutional measures. Quinine and Brandy are the central means resorted to. We notice also that Dr. Miner, editor of the Buffalo *Journal*, and Surgeon of the hos-

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* Scalp sutures occasioned the erysipelas, which made the trivial wounds wounds of Senator Sumner, an entering wedge of Secession.

pital in that city, gives it as his opinion that all local applications are useless if not positively injurious. He advises little or no interference, but if indicated, stimulants, food, beef essence, milk punch and support generally, in any available form. Has generally prescribed Dover's Powder and Quinine, but has never been able to see any difference if the quinine is omitted. Prescribes Chlorate of Potash, "mostly from the certainty that, at least, it will do no harm," and that it probably acts on the urinary organs. Chlorinated soda removes the fetor. Dr. Miner remarks that diphtheritic croup often resembles membranous croup so closely that we have no means of differential diagnosis. It often complicates many of the eruptive fevers. In all cases the general plan of treatment remains the same, although the gravity of the disease is greatly augmented.

Paracentesis Thoracis.—Dr. Henry I. Bowditch records the results of twelve years' experience, including 160 operations on 85 persons. He considers paracentesis as comparatively innocuous, if performed with the exploring trocar and suction pump suggested by Dr. Wyman. The difficulties occasionally ensuing are never permanent. Pain, slight dyspnœa, cough, &c., speedily passing away. He tapped one lady nine times in eight and a half months, and one elderly man, a physician, eight times in six weeks. The latter patient begged for repetition of the operation as a positive "luxury." 29 out of 75 of Dr. B.'s patients recovered apparently in consequence of the operation. The operation was performed generally whenever severe symptoms were present. In seven cases he got no fluid, but with no evil result.

He recommends to operate in every case where, whether recent or chronic, there is permanent or occasional dyspnœa of a severe character. And in *any*, even latent, cases where the pleural cavity is full of fluid, and it does not diminish after a reasonable amount of treatment.

The eligible point of operation is at the intersection of a

line let fall from the lower angle of the scapula and the space between the 9th and 10th ribs. But other points may be selected. All the alleged objections to the operation, he remarks, are to him, with his experience, simply absurd. He insists that no physician has any right to allow a patient to die of the pleuritic effusion without first trying this operation. He would now as readily puncture the chest as he would draw a tooth or vaccinate a child.

The students of Rush Medical College will recollect that this practice has been strongly urged upon them (at least since the present writer became connected with the institution), and if they have had any opportunity for experience, must have come to the same conclusion with Dr. Bowditch. With a mere modicum of tact and surgical skill enough to introduce a trocar, or lance an abscess, the operation can be performed, and the patient speedily passed from a condition oftentimes of exquisite suffering to one of comparative comfort.

More than this, if performed early, the dense, false membrane is far less likely to permanently consolidate and contract, rendering the lung incapable of expansion, even after the pressure of the effused fluid is removed. In some of Dr. B.'s cases the membrane formed on the pleura costalis was so dense and firm that the trocar failed to pierce it, but pushed it inward—this would have been avoided by an earlier operation.

ILLINOIS STATE MEDICAL SOCIETY.

The regular annual meeting of the Illinois State Medical Society will be held at Jacksonville, on the first Tuesday in May next, commencing at 10 o'clock in the morning. We hope the profession in every part of the State will be represented, as the meeting will be an important and interesting one. No further postponement will be made on account of the continuance of the rebellion.

N. S. Davis,

Permanent Secretary of the Ill. State Med. Society.

Chicago, Ill., Feb. 13th, 1863.

ARMY CORRESPONDENCE.

RAMBLES IN MILITARY HOSPITALS.

By R. M. LACKEY, M.D., Surgeon 98th Reg. Ill. Vol.

Nashville and its institutions have undergone vast changes since the State of Tennessee was plunged into rebellion. The halls of learning are turned into hospital wards, and where the student and young scholar toiled up the hill of Science, sick and wounded soldiers now find a resting place during the period of their affliction. No department of learning now *flourishes* in this once gay, peaceful little city, but the medical department of the University of Nashville, does *barely* maintain an existence; its number of students has dwindled from three to four hundred, or a baker's dozen. The large college building, a fine structure, is used as a military hospital; the Prof. of Surgery, a man well known, and distinguished for his professional attainments, like the large number of students, is not there; like the glory of the city and her institution, he has departed.

Prof. Bowling is still there, and lectures to the baker's dozen, once or twice a week. Several other medical gentlemen of the city lecture to this small class, making in all six lectures during the week, instead of six a day, as is customary.

There are twenty-three military hospitals in Nashville. Some of the buildings occupied as hospitals are tolerably well adapted—better, I think, than those in any other place that I have visited, and the hospitals are generally well conducted; wards are well ventilated, everything clean and well arranged for comfort and convenience.

Large numbers of those wounded at the battle of Stone's River, have been removed to Nashville. There are still large numbers of those most severely wounded, in Murfreesboro, and in hospitals near the battle field. Deaths from secondary hemorrhage, brought on while being transported in ambulances, are quite common. Two cases of this kind occurred in the ward in charge of my friend, Dr. Hanson, Ass't Surg. 42d Reg. Ill. One was a case of flesh wound, by musket ball, of the thigh, severing a branch of the profunda femoris artery. There had been but little nemorrhage from the time the wound was first dressed, until he was placed in an ambu-

laece, to be taken to Nashville; while being transported thirty miles over rough roads, a large quantity of blood was lost. The other case was a wound of a branch of the right carotid. The ball entered at the left angle of the mouth, and came out a little below the mastoid process of the temporal bone, on the opposite side. There was but little hemorrhage, and no unfavorable symptoms occurred while he remained quiet. While on the road to Nashville, hemorrhage occurred as in the other case. Ligature of the external iliac and common carotid arteries was performed on these cases, respectively, after their arrival at the hospital, but the loss of blood before the operation, had been so great that the men never rallied.

The mortality after secondary capital operations is, as is usual, very great. I have not met with a single case of secondary amputation of the thigh that has been successful. In two cases of gunshot wound, involving the knee-joint, where an operation was performed, one died about the 21st day, the other case the man was still living when I last heard from him, but there was little or no hope of his recovery, either with or without the operation.

Tetanus is of common occurrence among those wounded in the late battle. In some instances, it attacks those who have received slight flesh wounds of some portion of the body. I have heard of no cases occurring, since the battle, that have recovered. It is not surprising that the disease is of frequent occurrence, when we reflect that the men are suffering from the two most frightful causes of the disease, viz: Cold and wet, and bodily injuries.

Erysipelas is very troublesome, especially in Murfreesboro, where large numbers of wounded are crowded together.

The use of Bromine as a remedy in Erysipelas, seems, in the estimation of some surgeons, to rob the disease of its terrors, and it is to be hoped that the high expectations of it as a remedy in this disease, will not be disappointed. It has been used in the military hospitals in Louisville, Ky., and it is said, by many intelligent surgeons, with uniform success. Prof. Goldsmith, I am informed, was the man who first introduced it into the hospitals there as a remedy in this disease. The beneficial effects of the remedy are obtained by fumigating the atmosphere of the wards where the disease occurs. It is used also locally,—applied so that the fumes come in contact with the diseased surface. Some Surgeons have used it, by inhalation, as a remedy in diphtheria, and with very satisfactory results. I have not seen the remedy used in a sufficient

number of cases with benefit, to speak so confidently of its efficacy as some do.

The present location of this army is very unfavorable for health. The country for some miles around Murfreesboro is rather level so that some of the camps must necessarily be on flat places; the heavy rains have made ponds and brooks all around, and in the midst of some of the camps. The old tents are not water proof by any means, so that we sometimes get wet from the clouds above and the earth beneath.

Camp Fever prevails to a considerable extent. The new regiments suffer most from it. Pneumonia, with typhoid condition, ranks next in fatality, according to my observation. Diarrhœa prevails to a greater extent here, than it did at this season last year, in the army in Missouri. At no other time during the past eighteen months, have I met with so many cases of "obstinate nostalgia" among soldiers, some of them, when they can not get to their earth-homes, contract disease, by depression of spirits and filthy habits, and eventually go to their long homes.

Camp near Murfreesboro, Tenn., Feb. 2, 1863.

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SELECTED.

DIALYSIS.*

Human ingenuity is advancing the art of chemical analysis with rapid strides. It is becoming no easy matter to keep oneself at all *au niveau* with the discoveries in this department of science. While yet fascinated with the beauties and subtleties of Spectral Analysis, our attention is claimed for another analytical discovery, less beautiful it is true and less subtle, but susceptible of much wider application, yielding results of greater practical value, and therefore possessing more immediate interest to us as medical men. We allude to the discovery of Dialysis, which we owe to Mr. Graham, the present Master of the Mint. It may be fairly described as a kind of royal road or short cut, enabling us to arrive at analytical results previously unattainable, or attainable only by processes far more complicated, far more open to fallacy. Except in rare instances it employs no chemical reagents; it achieves its end merely by availing itself of certain physical properties inherent in the substances to be analyzed. Our readers may possibly welcome an account of the principles of

* "Graham on Liquid Diffusion applied to Analysis," *Royal Society's Transactions* for 1861, Part I. "Redwood on Dialysis," *Pharmaceutical Journal* for April, 1862. Daubeny's Lectures on Agricultural Chemistry," *Gardeners' Chronicle* for December 7 and 14, 1861.

this new analytical process, the mode of its practical application, and the peculiar, valuable results it enables us to attain.

Dialysis may be defined as analysis effected by liquid diffusion—in other words, the separating of liquid substances from each other by taking advantage of their different rates of diffusibility under particular circumstances. Our knowledge of the laws of liquid diffusion was exceedingly imperfect up to the summer of last year, when Mr. Graham published the results of his elaborate researches on this subject. So much of these results as is necessary in order to understand the principle of dialysis, we will endeavor very briefly to explain.

First. There is a great difference in the diffusibility of different substances in the liquid state, just as there is in the gaseous state. If by means of a pipette we convey a solution of any substance (a salt for instance) to the bottom of a jar of distilled water so as to form a distinct stratum, and then leave the jar undisturbed in a uniform temperature, the dissolved salt will always diffuse into the superincumbent water at a certain rate within a certain time. This rate will vary with the nature of the medium into which diffusion takes place; if, for instance, some other fluid be used instead of water. Briefly expressed, the fact amounts to this—that "different substances in solutions of equal strength diffuse unequally in equal times." (Redwood). For instance, common salt diffuses into water twice as fast as Epsom salt, and this latter twice as fast as gum Arabic. Again, if instead of a single substance we convey a mixed solution of two or three substances to the bottom of the said jar, these substances, notwithstanding their mixture, will still maintain their respective rates of diffusion, the more diffusive body traveling most rapidly and showing itself first and most largely in the upper strata of superincumbent liquid. Hence, what in the case of a single body is mere diffusion, in the case of two or more bodies mixed together is a diffusive separation of them from each other. Such separation of them will be more or less complete in proportion to the difference between their respective diffusibilities.

Secondly. Between highly diffusive substances on the one hand, and feebly diffusive substances on the other, Mr. Graham has established some important grounds of distinction. The only one, however, which concerns us at present is this—viz., that the former affect the crystalline condition, while the latter are not crystallizable, and have, further, the peculiarity of becoming gelatinous when combined with water. Hence, highly diffusible substances he classes together as "crystal-

loids," and feebly diffusible ones as "colloids" (from *collin* or gelatine, the type of the class). Among the colloids are hydrated silicic acid, hydrated alumina, and other soluble metallic peroxides, isomorphous with the latter body, together with gelatine, albumen, starch, dextrin and the gums, caramel, vegetable and animal extractive matters.

Now, it is characteristic of the bodies just mentioned that, while they are more or less permeable to crystalloids, they are wholly impermeable to other colloids like themselves which may be in solution. For instance, suppose a layer of firm jelly, or some other colloid of a more convenient nature (such as an animal membrane) to be interposed between water on one side, and a mixed solution of common salt and albumen on the other, it will wholly intercept the albumen, but will allow the salt freely to diffuse through its substance into the water on the opposite side.

It is plain, therefore, that although, as was above shown, simple diffusion into water will partially separate mixed bodies from each other, a far more complete separation will be attained by causing the diffusion to take place into water, not directly, but through an intervening membrane, such as a bladder or sheet of parchment. And this is just what is done in dialysis, which is nothing more than the diffusive separation of crystalloid from colloid bodies through a septum of gelatinous matter, the septum allowing the passage of the one, not of the other. The apparatus needed to conduct this process is the simplest possible. It consists of (1) a basin or deep dish containing three or four inches of pure water; (2) a "dialyser," which is merely some kind of membranous septum secured by a bit of string around a light hoop of sheet gutta-percha, so as to form a vessel like a tambourine. Of all the substances yet used for dialytic septa, the most convenient has been found to be the "parchment-paper" made and sold by Messrs. De la Rue & Co. Care must be taken that it is not porous. The mixed fluid to be dialysed is first poured into the hoop upon the surface of the parchment-paper to the depth of half an inch or so. The dialyser is then floated on the basin or dish of water, into which the crystalloid constituents of the mixture gradually diffuse, the colloid constituents remaining behind. Mr. Graham found that half a litre of urine, dialysed for twenty four hours, gave its crystalloidal constituents to the external water. The latter on evaporation yielded a white saline mass, from which urea was extracted by alcohol in so pure a condition as to appear in crystalline tufts upon

the evaporation of the alcohol. Professor Redwood observes that ordinary septa can oly be used in dialysing aqueous solutions; a septum suitable for dialysing alcoholic or ethereal solutions not having yet been discovered. Some form of collodion, he suggests, may possibly answer the purpose.

The process of dialysis admits of some very important practical applications, to which we will briefly allude. (1). It permits of the isolation of various chemical substances in a state of purity in which we were not previously aware of their being able to exist. For instance, chemists had hitherto never succeeded in obtaining a perfectly pure solution of silica. The solution of it, obtained by treating silicate of soda with hydrochloric acid, was not pure; it always contained a certain quantity of hydrochloric acid and chloride of sodium, which resisted all further attempts at separation. But by subjecting the said silica solution to the process of dialysis, the acid and salt, being crystalloids, diffuse out, while the silica, being a colloid, remains behind dissolved in water and perfectly pure. In like manner, dialysis enables us to obtain solutions of peroxide of iron, alumina, and several other bodies, perfectly free from the salts or other chemical agents hitherto indispensable to their solution. (2). In medico-legal inquiries, it affords a most valuable means of separating arsenious acid and the various poisonous metallic salts from their organic solutions. For instance, let a portion of tissue suspected to contain arsenic be chopped into small pieces, soaked in pure water, and then thrown on the dialyser. At the end of twenty-four hours the arsenic, even if its quantity be infinitesimally small, will have diffused into the external water in a state fit for the immediate application of chemical tests. The poison is thus eliminated free from all organic impurity, and without employing any other agent than distilled water—advantages which any one conversant with the usual processes for separating minute quantities of arsenic will not fail to appreciate. Vegetable poisons, such as strychnine, morphine, and the other poisonous alkaloids, may be separated from their organic solutions in precisely the same manner. (3). Professor Redwood suggests its application to another purpose, viz., "the separation of the more active crystallizable constituents of vegetable substances from inert colloidal matter, and the production in this way of a new class of medicines, containing the more active principles of plants, partially purified, and in the state of combination in which they exist in nature." Such preparations would occupy an intermediate place between

tinctures, decoctions, and extracts, on the one hand, and the pure, active principles which they often contain (such as alkaloids), on the other. The advantages of vegetable remedies in this form would be greater uniformity of strength, certainty of action, and convenience of administration. They would also keep better, and being void of all inert matter they would be *purely* medicinal, which in their present crude state they are not. The difficulties in the way of their preparation would be great, but probably not insurmountable. (4). It affords a partial explanation of certain points in the physiology of animals and plants hitherto involved in much obscurity. (We say "partial" explanation, because, in all the processes about to be mentioned, a *vital* as well as a *physical* force is at work. At any rate, their full phenomena take place only where life is present; they cannot be imitated outside living organisms). Professor Redwood instances the processes of absorption and secretion accompanying the act of digestion. The mucous membrane of the stomach and intestines may be compared to a dialytic septum between the blood on the one side, and the blood-making constituents of food on the other. Dilute liquids taken into the stomach diffuse through, or (as we generally say) are absorbed by, its mucous membrane. The plastic constituents of food, on the other hand, being colloids, "are retained in the stomach, while the act of digestion proceeds under the influence of crystalloids that are dialysed into that organ, and then pass on to undergo new changes connected with absorption, assimilation and excretion." He further observes that "the action of medicines must be considerably influenced by the state in which they exist as crystalloids or colloids. Thus, iron in the state of chloride, sulphate, or other crystalloidal salt, would be diffused through the walls of the stomach; but not so if in the state of a colloid, such as basic chloride or basic nitrate, in which state it would pass into the intestines, exerting its action probably through the entire length of the alimentary canal." When we know more of the comparative diffusive power of different medicinal preparations than we do at present, we shall probably prescribe them with greater success.

Lastly. Professor Daubeny, of Oxford, has shown, very clearly and fully, how and to what extent the principle of dialysis explains certain phenomena of vegetation—such as the transmission of sap through a plant, the separation of its various secretions from each other, and their maintenance in a state of isolation in appropriate receptacles. (1). The sap is

propelled upward through the plant partly by capillarity, partly by atmospheric pressure, owing to the evaporation from the leaves and the partial vacuum thereby occasioned. But it makes its way *into* the plant, in the first instance, by endosmosis through the spongioles of the roots. (2). The particular compounds secreted from the sap in different parts of the plant are maintained in their state of isolation and purity by the same principle of dialysis. The peculiar juices of plants (starch, gum, oils, &c.,) are generally colloids, and therefore have no tendency to pass through the walls of the cells in which they have been elaborated. The different acid and alkaline products, on the other hand, being crystalloids, permeate membrane freely, "but are only temporary constituents or steps in the series of changes which are intended to convert carbonic acid into sugar and starch, and they are consequently got rid of either by exosmosis or else by some other chemical process by which they are converted into glucose or fruit sugar." The principle of dialysis has likewise important bearings on the nature of the ultimate molecules of matter, and on certain geological phenomena. These, however, possess more interest to the geologist and physicist than the physician.—*Medical Times and Gazette.*

CLINICAL LECTURE ON THE TREATMENT OF PNEUMONIA.

DELIVERED AT ST. MARY'S HOSPITAL, MAY 10, 1862.

By THOS. K. CHAMBERS, M. D., Lecturer on Clinical Medicine.

GENTLEMEN: There are three cases of pneumonia under my care in Albert ward this week, to which I have drawn your attention as illustrative of those of the most common phases under which you have to treat that disease in the adult. No. 1. Frank, uncomplicated, double pneumonia, in a temperate, robust man; excessive dyspnœa. Cured by venesection, jacket poultice, food every two hours, wine. No. 2. Pneumonia of upper and lower lobes of right lung, very slight in left lung, in a broken down old man. Cured by

cupping in front, jacket poultice, food every two hours, and wine. No. 3. Congestive pneumonia of one lower lobe in typh fever. Cured by half-jacket poultice, cupping below scapula, food every two hours, wine, and bark.

(*The details of the cases are omitted here to save space.*)

In pneumonia a terribly vital organ is smitten, and so far as the disease extends the destruction is total. A consolidated or even congested piece of pulmonary tissue is impotent to fulfil its functions, and yet that those functions should be fulfilled is essential to animal existence. It is easy therefore to see that the gravity of the pneumonia is in a direct ratio to the quantity of lung involved. The degree or form of the inflammation or condensation is of much less moment, so far as immediate danger is concerned, than the extent of tissue over which it is spread.

Hence comes the importance of having some ready and effectual means at hand of checking the march of the inflammation to fresh parts. If we can do this, we contribute more certainly to the patient's life than if we regulate, however favorably, the progress of it in already affected places. No means is so readily applied, so immediate in its operation, as bloodletting. Its action has not to be waited for, like that of drugs in medicinal doses, but begins at the moment of application. That is a great point where time is so valuable. I believe also that it is the most powerfully effectual of the agents at our disposal, and that, rightly used, it is the saving of many a life in pneumonia.

The beneficial action of bloodletting in pneumonia is mechanical. It is more a question of hydrostatics than of physiology. The pathology of pneumonia is as follows: By the temporary death of a portion of the lungs, the blood cannot be quickly enough passed onwards through their tissue; it can run freely as far as the right side of the heart, but there it is stopped; the throng pressing onwards from behind makes matters worse, and thus the balance between the venous and arterial heart is destroyed. You can feel the apex of the organ beating strongly against the ribs, the muscular action being excited by the presence of an unusual amount of venous blood; yet the artery at the wrist is at the same time striking your finger with an imperfect, weakened force.

Take away some of the blood from the veins, and the balance is restored—the pulse becomes "freer," as the technical phrase is; that is to say, the heart being relieved of the undue crowd in the right side, is not arrested in its contraction, but

is able to close upon its contents, and supply them steadily to the arteries.

The advantage of general and local bloodletting is of identically the same nature, though they differ somewhat in degree, and are diversely applicable. Where the patient was, previous to his current illness, in vigorous health, actively digesting his food, and actively renewing his tissues, he will bear, and easily repair, the detraction of a good large quantity of blood; and a good large quantity of blood is most conveniently drawn from the arm. To get, therefore, the full advantage of the remedy, and be on the safe side, you should practice venesection. But if the pneumonia has come on a person previously an invalid, or in weak health, you fear for the possible bad consequences of your treatment, and you cast about for some means of getting the greatest advantage out of the least loss of blood. This is obtained by cupping the region of the heart. Your six or seven ounces taken from thence, in a delicate invalid, seem to produce a corresponding effect to twelve or fourteen let from a vigorous man's arm. But there are practical inconveniences in cupping to a large amount in this situation. You are obliged to cut deep to obtain a good flow, and deep cuts cannot be stopped easily, but go on oozing unperceived into the poultice which, as I will instruct you presently, is to be put round the chest.

Remember that in letting blood you are wielding a dangerous weapon. While from a mechanical point of view nothing can equal the aid it gives, at the same time its more remote or physiological action is hurtful. The shrewd comedian tells us, "necesse est facere sumptum, si quæris lucrum;" so that if you have gained the inestimable boon of a restoration of balance in the circulation, and a consequent relief of dyspnœa and an arrest of the progress of death in the lungs, you must not complain if some evils attend the process. The mere loss of so much "liquid flesh" is in itself an evil, but a minor one; of greater import is the increased proportion of effete fibrin and water which it induces, the diminution of red globules, and the consequently diminished power to bear up against the destruction, however temporary, of so much pulmonary substance.

Judge, therefore, of the necessity for this treatment by the balance between the heart and the arteries. If the apex of the former organ strikes strong while the pulse at the wrist is defective, act freely and confidently. If, on the contrary, the ventricles are weak while the pulse is full, large, and rapping,

be cautious in what you do, and if you draw blood at all, let it be by cupping the chest.

You will find in some lectures on medicine rules about bloodletting in pneumonia attempted to be deduced from the supposed degree of consolidation of the pulmonary tissue. These rules are singularly foolish and inapplicable to practice. They say you should bleed so long as you know that the lung is in its first stage of consolidation, (*i. e.*, congestion), as indicated by fine crepitation and incomplete dulness; and that you should not bleed after it has once become so completely consolidated as to admit no air into the finer bronchi—a state declared by the sound of coarse crepitation and complete dulness. Such a rule is quite useless at the bedside, and will often prevent your employing active practice in cases where it is urgently required. In the first place, in a majority of cases fine crepitation is masked by the mixture of coarse, produced by the presence of catarrhal mucus in the larger bronchi, especially in the catarrhal pneumonia of young persons. If you wait till you can hear distinctly fine crepitation, you will wait too long. Then, again, the dulness of congestion is not necessarily incomplete, as you may satisfy yourselves by examining a case of transitory congestion in continued fever, which is often very absolute, though it is so transitory that a mere change of position may remove it in twenty-four hours. Then, again, a slight collection of serum in the pleura may make the lower lobe dull at the very commencement of pneumonia, and prevent your bleeding at a very early stage, if you were to follow the rule I quoted. But the most truly important consideration and the most serious objection to the rule is, that you may have all stages of partial tissue-death going on at the same time: one lobe, or one part of a lobe, may have advanced even to yellow hepatization, while another part is entering into red hepatization, and in a condition which most would agree is that capable of benefit from letting blood. Your best guide to the necessity will be the dyspnœa, and your best check, the balance of the heart and arteries, as I have explained already.

Remember now what I told you about bleeding in a former lecture on "Anæmia and Bloodletting"—*be careful to supply material in the place of that which you are taking away.* Let the patient be fed with beef-tea or milk every two hours, just as if he had typh fever. I mention this part of the treatment next to the bleeding to remind you of the close connection which there is between the two, and because of the

immense importance of it to your success, whether you elect to bleed or do not.

I now come to a direct restorative, about the use of which at all times you need have no manner of hesitation. You can always, without any exception of age, sex, condition, cause, or complication, follow a treatment to which I attribute more power of saving the lives of pneumonic patients than to any other, and which you see me apply in all cases; I mean, the enveloping the chest in a large bath-like poultice. The action of warmth and moisture on animal tissues tends directly to increase their vitality. You may *see* with the naked eye a healthy surface of skin under their application renew its life; it empties itself quicker of its pale, livid, venous blood, and glows with a fresh access of the bright arterial stream; it swells up elastically with fresh juices; it is more delicately sensitive when used for the purposes of touch; at the same time it feels no pain, but, on the contrary, an exquisitely pleasurable calm. You cannot see this renewal of life in internal organs; but you may infer that what takes place in one tissue takes place also in another with modifications dependent on distance and other difficulties of application. And you may infer it also from the results; for you find the dyspnœa diminished, the breath being easier drawn in spite of the weight of the poultice; the hot, fevered skin becomes moist and active, and soon the ribs begin to move again and air is readmitted into the previously paralyzed lung-tissue. These effects are the most strikingly shown in the case of infants, whose thin chest-walls are rapidly and efficiently permeated by the influences of the poultice, and in whom also this remedy is the only one really safe and invariably necessary. I cannot speak too strongly of the importance of your adopting it, and letting all other treatment be rather rejected than this directly restorative agent.

The poultice is best made of bruised meal, because that keeps moistest. It should be spread half an inch thick at least, on a cloth or flannel, as broad as the circumference of the thorax. If any portion of the upper lobes is inflamed it is essential, and even if only the lower lobes are inflamed it is prudent, that it should be deep enough to cover the whole chest from the collar bones to the hypochondria. Lay the patient on it on his back, and fold it across the front until it meets. In adults it will usually keep in its place of its own accord; but in children it is useful to have a tape stitched on in front and a tape behind, which you tie over each shoulder

in the manner of a shoulder strap, otherwise the little prisoners wriggle out of their soft breastplates. When once you have got it *in situ*, keep it there, and desire the nurse, on pain of dismissal, never to take it off till another hot one is ready to go on.

In low fever the continuous poultice somewhat stands in the way of the cool sponging. But, in practice, this last important part of the treatment becomes less necessary at the period when congestion and pneumonia occur; the skin has then become cooler and more active. Besides, the poultice often takes its place by softening and suffusing with a gentle perspiration the whole body. I have often had pneumonic patients complain of the way in which it makes them sweat.

Alcohol, especially in the form of port wine, is very useful in treating pneumonia. Even in hearty temperate persons, when you are going to bleed, it is desirable to give a little, as was done in Case 1. A glass of hot negus before the operation makes it safer; and whenever you observe the nervous system prostrated by the extent of the disease, so as to produce tremor of the hands, quivering of the tongue, delirium, dry brown tongue or a tendency thereto, throw in a little wine from time to time. In old persons, especially in the upper classes, who have been used to good living, and in persons of all ages who have indulged too freely in alcoholic liquids (like Case 2), you need not wait for any symptoms as above described, but begin with wine immediately. In children it is not required, and they get well quicker without it.

In the pneumonia of typh fever, position is of great importance. As long as the walls of bloodvessels retain their natural elasticity, they are able to resist the gravitating force which acts, of course, on the blood as on all matter; but when their life is lowered in disease, the elasticity is the first vital property which suffers, and the blood then gravitates towards the lowest part of the viscus. This is especially the case in typh fever. Lay the patient, therefore, on the side opposite to that affected (as was done in No. 3), or even on his face for a time, if both are affected; and thus the very force of gravitation, which you feared as an enemy, becomes a friend, by withdrawing the congestion from the weaker point. This boy was cupped on the side. You need not be afraid of a small loss of blood in typh fever, where an important viscus requires it. A large portion of the vital fluid you take away is poisoned and dead already, and unfit for the purposes of life; so that you are not robbing the patient to the full extent of the quan-

tity drawn. You saw this lad was much more lively after his cupping than before. It is better to draw it locally than generally, because local benefit is expected from it, and not general.

I always abstain from giving purgatives in pneumonia. My reason is, because I have observed that patients who have diarrhœa at the same time generally do very badly; and if natural diarrhœa does harm, I infer that artificial diarrhœa does harm also. I prefer to produce constipation by opiates, where it does not already exist. If the rectum gets blocked up with feces, it is easy to wash it out with warm gruel.

Blisters, also, have seemed to me to do harm in a few cases where I have seen them employed before the patient came under my treatment. It is usually non-medical persons who put them on, under the general idea that they are good for a cough with pain in the chest.

Nothing has been said about antimony and mercury, drugs formerly much used in pneumonia. They are destructives, and I cannot see that there is anything to be destroyed in this disease, or that there is anything whose destruction would aid the employment of direct restorative treatment. When I used them, I was frequently obliged to leave them off on account of bad symptoms attributable to their agency, and I always felt doubtful if success in prosperous cases could be traced to them. But in all diseases which have been under treatment before yours, pray never let a word escape your lips, or a thought dwell upon your minds, about the patient being worse for the means previously employed. Most probably the harm done even by the most unsuitable drug is inappreciable; for a sick man is a tougher animal than we often give him credit for, and will stand a vast deal of faulty physic, and it can hardly be but what some of the treatment has added to his chances of life more than if he had been let alone. Besides, we are all infinitely fallible, God knows, and it is not for us to judge of circumstances we have not seen.—*Lancet*, Aug. 16, 1862.

PREPARATION OF OXYGENATED WATER AND ITS THERAPEUTICAL USE.

Dr. Ozanam gives the name of oxygenated water to water which is distilled and afterwards charged with oxygen under the influence of high pressure. The experiments he has made

have led him to establish three modes of operation by this new medicine. 1. It improves the condition of the blood in cases where that fluid is impaired or deficient, as in dyspnœa, asthma, slow asphyxia, cyanosis, diseases of the heart, hæmorrhoids, and hæmorrhoidal visceral congestion. 2. It possesses an oxidizing or metamorphic action in cases where the organic products are arrested in their development, as happens in glycosuria, gout, the uric and oxalic gravel, and perhaps in scrofula. 3. It exerts an exciting and regulating action on the brain and the thyroid gland, and hence its use in goitre and cretinism. If, in fact, snow-water taken as drink gradually produces these morbid conditions, it is because it is entirely deprived of vital air. On the other hand, oxygenated water, as well as the inhalation of gaseous oxygen, produces no results in hemierania, and unfavorable ones in cases of inflammatory disease. Thus, in croup, the oxygen temporarily tranquilizes the dyspnœa, but it increases the fever. In the treatment of ulcerated cancer the oxygenated water revives pretty well the powers of the patient, and the wounds assume a more vivid and rosy color, but they do not heal; and if the surfaces are bathed with rags steeped in oxygenated water, even when very slightly charged, the ulcer is soon observed to become gangrenous on the surface. Oxygenated water is perfectly limpid and pure, and the gas is disengaged in the form of very fine bubbles. Having little taste, it resembles in this respect water which is deprived of air; and, like the latter, it is a little heavy for the stomach.—*B. and F. Med.-Chir. Rev.*, July, 1862, from *Comptes Rendus de l' Acad. des Sc.*, November, 1862.

NOTES UPON DIPHTHERIA.

By W. F. WADE, M. B., M. R. C. P., London. Senior Physician to the Queen's Hospital, Birmingham, Eng.

1. At the commencement of the present epidemic, being dissatisfied with previous post-mortem examinations, which had been limited to an investigation of those parts whose tissues are continuous with those of the throat, and having noted phenomena which were not thereby explained, I determined,

when opportunity should offer, to examine the state of other organs whose tissues were not so continuous.

2. The first post-mortem furnished me with kidneys (of which I retain a drawing) as much altered in appearance as any that we find after death from scarlatinal dropsy.

3. Obvious pathological analogies led me then to suspect that such a condition would be attended with albuminuria during life. The examination, next day, of the urine of a patient under the care of Mr. Robins, showed that it contained albumen. The frequent occurrence of albuminuria in diphtheria has since been universally recognized.

4. Curiously-enough, subsequent dissections have but rarely furnished me with kidneys so conspicuously altered as these first ones. The changes are more commonly microscopical; consisting of crowding and opacity of the epithelium, which is most readily detached and rapidly disintegrates.

5. Casts of various kinds are to be found in some specimens of the albuminous urine of diphtheria.

6. This albuminuria and these anatomical alterations of the kidney are important as showing—

(*a*) That the disease does not spread solely by continuity of tissue, as had been previously believed;

(*b*) That in some cases the disorder has a tendency to migrate; and in such there is more reason to apprehend croup and other complications than in cases where this migratory tendency is not apparent.

7. Albuminaria as a symptom of disease is important from the fact of its being frequently, though not necessarily, connected with and dependent upon conditions which impair the excretory action of the kidneys.

8. In many cases there are indications of diphtherical albuminuria being so associated.

9. These indications are: diminution of the urine in quantity; suppression of the lithates; nervous symptoms—as indifference to surrounding objects, somnolence, coma—coincidently with the commencement of the albuminuria, and not referable to any other known cause but the kidney complication.

10. The commencement of the albuminuria may be attended by an increase of the pyrexia, unexplained by any increase of the local disorder or other efficient cause.

11. These symptoms are relieved by increased urinary exertion.

12. Albuminuria is not necessarily attended by any obvious symptoms of an unfavorable character.

13. An imperfect elimination of urinary elements may be unattended by albuminuria. In one case, and sudden diminution of the urinary secretion without albuminuria was attended by swelling and pain of the carpal joints (rheumatic?) The symptoms described in No. 9 are developed coincidently with this imperfect elimination.

14. I have not observed the early presence of albumen in the urine which, from the concurrent testimony of trustworthy observers, no doubt frequently occurs. Two explanations of this fact offer themselves. In this first place, most of my cases have been seen in consultation, which is demanded in the majority of cases only when fatal symptoms have already supervened. Secondly, my treatment has long been directed to the prevention of kidney complication.

15. Apart from its early occurrence, there seems to be a special tendency to albuminuria about the seventh or eighth day, at which time the disorder has a natural tendency to terminate. Under such circumstances it is to be looked upon as a critical phenomenon. It may occur at any period.

16. Kidney affections commonly precedes other complications, such as croup and purpura.

17. More exact observations upon the amount of urinary excreta before, during, and after intercurrent albuminuria are much wanted. Also in cases where albuminuria does not occur.

18. If there be retention of urinary elements in the system, it is probable that it tends to induce other complications. (See Dr. Parkes' Lectures upon Pyrexia.)

19. I have found specimens (of which I retain drawings) of anatomical alterations of the spleen, which has in some instances been found solidified, and of a pinkish buff color.

20. The microscope showed that in such spleens there was an unorganized, hyaline, semi-solid material filling the interspaces of the trabeculæ.

21. I have also found alterations of the spleen, such as Dr. Habershon has described as occurring in cases of purpura.

22. In no case has manifested alteration of the spleen been found after death where purpura had not been observed during life.

23. Some cases of purpura have been seen in which I could not undertake to say that the spleen was abnormal.

24. There is no constant proportion between the severity of the purpuric symptoms and the amount of splenic change.

25. The vast majority of fatal cases have presented croupy

symptoms in the last stage, but many would probably have been fatal without the croup.

26. In no case that I have dissected was the laryngeal exudation continuous with the faucial.

27. In no case of croup that I have dissected has the exudation failed to extend beyond the bifurcation of the trachea. In most instances it has extended into the minute ramifications of the bronchi.

28. The tracheal and bronchial exudation has varied in consistency from a very firm membrane to a pasty granular layer.

29. In two cases, besides (other?) purpuric symptoms, I found after death nodules of pulmonary apoplexy.

30. In one case I thought that there was some hyaline exudation in the supra-renel capsules. In that case, and in another, these organs were intensely vascular.

31. We are justified by the preceding observations, as well as by other well-known symptoms of the disease, in looking upon diphtheria as a zymotic disease; not as Bretonneau conceived it to be, a local disease, spreading by continuity of tissue, and only affecting the system in a secondary manner.

32. I have never stated, and I am not prepared to state, my opinion upon the relation, if any, between diphtheria and scarlatina.

33. To those who find less difficulty in coming to a positive conclusion upon the point, I beg to recommend the following considerations:

(*a*) Scarlatina and diphtheria may be associated.

(*b*) Scarlatina is not necessarily accompanied by efflorescence, or by noticeable fever.

(*c*) Diphtheria may probably affect the system without producing any throat exudation.

(*d*) Scarlatina may recur.

(*e*) Certain forms of scarlatina may be *accompanied* by albuminuria.

(*f*) Scarlatinal albuminuria does not necessarily produce dropsy; dropsy, in fact, is the exception in albuminuria *accompanying* scarlatina.

(*g*) Any occasional form of a specific fever may become the type of an epidemic.

(*h*) Granting that scarlatina and diphtheria are both zymotic disorders, we do not know what is the nature of their respective poisons.

34. Local treatment exerts no known influence upon the general course of specific fevers.

35. The true rule of practice in such diseases is to obviate the tendency to death.

36. The tendency to death in diphtheria is sometimes by asthenia, directly induced by the blood-poison; sometimes by complications, of which the earliest is generally a kidney affection, interfering with urinary elimination. We must therefore eliminate the poison, and if possible *prevent* the complication.

37. In pyrexial disorders, one of the most constant and mysterious phenomena is the quantity of water disposed of by the system. (See Parkes on Pyrexia.)

38. In diphtheria the quantity of ingesta will be commonly small if the patient be allowed to consult his own convenience.

39. Water is essentially necessary to the performance of the urinary functions.

40. Concentration of the urine is equivalent to kidney irritation.

41. Diphtheritic albuminuria is often preceded by urine of high specific gravity. The supervention of albuminuria may fail to produce this.

42. It is often preceded by deposit of lithates, showing a comparative paucity of the urinary water.

43. All plans of treatment which have been adopted on the large scale for the treatment of diphtheria have embraced the ingestion, in large quantities, of fluid nutriment as an important if not essential element.

44. By the copious administration of pure water or diluents in diphtheria, the urine may be enormously increased in quantity, often without corresponding diminution of its specific gravity.

45. This seems to indicate that the detritus of interstitial metamorphosis had been previously insufficiently eliminated.

46. I recommend the ingestion of bland fluids in as great quantity as the patient will take; half a pint every hour or two, if possible, in the case of adults.

47. To avoid chills, I recommend that in all cases the patients should be clothed from head to foot in a flannel gown, and kept in bed. I believe that the adoption of this plan would have saved almost innumerable lives.

48. Assuming the presence of a substantive poison in the system we know no drug which will act as a direct eliminant but iodide of potassium. It positively eliminates lead, and we may presume that it positively eliminates syphilis.

49. I employ iodide of potassium in two, three, or four grain doses every two or three hours. I have been in the habit of conjoining with it chlorate of potass in five to ten grain doses.

50. I have known no instance of a fatal termination where this plan of treatment had been carried out. I have known no instance of serious symptoms or of secondary paralysis supervening where this plan had been rigorously carried out. The difficulty, especially with children, is in ensuring a copious supply of fluid.

51. This plan exercises a speedy and salutary influence upon the general symptoms of the disease. The exudation often diminishes with extraordinary rapidity. Essential fevers run a definite course, and can be rarely if ever cut short. Till the disease has gone we cannot be free from the danger of complication. Hence the immense importance of continuing the treatment after immediate relief has been obtained.

52. Aqueous injections may be employed to supplementalize ingestion by the mouth; but this is a plan of very inferior efficacy. If deficiency of urine be present, bitartrate of potash, sinapisms to the loins, warm bath, and solution of acetate of ammonia help to restore it.

53. This general plan of treatment does not preclude other remedies in special cases, or to meet special indications.

54. Where it has been carried out I have not found a necessity for stimulants, nor have I found that these, when administered, have produced that immediate and sensible (even if incomplete) amelioration that we expect to see in cases where they have a beneficial influence.

55. The same may be said of tonics and iron. I have never met with such marked anatomical alterations as in cases which had been freely treated with a mixture containing muriated tincture of iron and hydrochloric acid. It does not necessarily follow from this that such remedies may never be required; but they should not be used indiscriminately and recklessly.

56. It is contrary to the ordinary rules of our art to interfere with the local development of blood-poisons, except for special reasons.

57. The faucial exudation of diphtheria is to be considered as the local manifestation of a general disease.

58. Interference with it will not prevent its reproduction, nor will it prevent laryngeal complication, nor will it prevent the supervention of grave constitutional disorder. It is exceedingly irksome to young patients.

59.. We are justified in interfering with the throat exudation when there is excessive fetor, or when it is so copious as to interfere with respiration or deglutition—not otherwise.

60. If the croup always extend below the bifurcation of the trachea, tracheotomy is but a forlorn hope; as such it may be right to resort to it in some cases.*

61. I am not satisfied with that explanation of the secondary paralytic affections which attributes them to reflex irritation. Possibly minute dissection might discover some organic change in (*a*) the nervous centres, (*b*) the nervous periphery, or (*c*) the muscular tissue.

62. Albuminuria may or may not be present in cases of diphtheritical paralysis.

63. Cases of paralysis progress so slowly when treated simply by quinine and other tonics as to lead to the supposition that these drugs exert no direct influence upon this sequela, which probably in such cases wears itself out.

64. I believe I have obtained more speedy results with eliminants—as iodide of potassium, iodide of iron, and bichloride of mercury with bark.

65. Blisters to the top of the sternum, if applied early, seem to exercise a most beneficial influence upon the paralysis of the palate.

66. Paralysis may follow, as kidney complication may attend, slight as well as severe cases of diphtheria. In one case I have heard that the paralysis has lasted two years, and may be considered permanent.—*London Lancet.*

* According to M Roger, twenty per cent. of the children operated upon at the Hospital des Enfans Malades in Paris recover.—*Archives Generales de Medicine, April,* 1862.

ORIGINAL COMMUNICATIONS.

FOREIGN BODY IN THE AIR PASSAGES—SPONTANEOUS EXTRUSION AFTER 108 DAYS.

By JOHN SWAIN, M. D., Ballardsville, Ky.

On the morning of Oct. 5, 1862, I was called in haste to see Oscar Barnhill, aged about 9 years. The messenger saying he had swallowed a tack. On arriving at the house, the little patient informed me, that having the tack in his mouth, while looking up at a map upon the wall, he swallowed it; that he felt it scratch in its passage, all the way to the pit of his stomach.

He had already vomited on the hearth, but was confident he had not thrown it up, for he still felt it in his stomach. I caused him to swallow a raw egg, and in some ten minutes gave him an emetic. In the mean time, I manipulated and auscultated the trachea and examined the chest, believing that it might be lodged there rather than the stomach; I discovered a wheezing in the upper portion of the trachea, extending a little below the cricoid; was informed that he had a cough for some days; he coughed occasionally, but not as frequently as he should with a foreign substance in his "windpipe;" pressure upon the trachea gave no evidence of its location. He vomited some four or five times, gave up his breakfast, and, I believe the entire contents of the stomach, but no tack. I again auscultated for some sign, but found nothing more than the wheezing as above. I sent for my friend, Dr. Wells, determining to perform laryngotomy, if upon canvassing the symptoms, we could fix the point of lodgment within surgical reach.

By the time of the Doctor's arrival, he had recovered from his fright and the effects of the emetic, and there being little or no disturbance in his respiration more than the cold might produce, after another careful examination, we concluded the child might be correct in his relation of its passage to his stomach, and that he left it in the ashes with the first emeses. We consequently (and wisely, as the result proves,) determined not to interfere, but leave the doubtful matter to nature, as the safest course. He immediately got up and went about his usual amusements.

He attended school from that time regularly, with no inconvenience, save a slight hacking cough night and morning, and an occasional wheezing upon extra exertion, (from which he was relieved by a few moments' rest,) up to the morning of the 26th day of Jan., 1863, 108 days from the time of inception, when, while in bed, by a violent fit of coughing, he expelled upon the bed-clothing, the identical tack, enveloped in bloody sputa; calling to his father, "here it is, here's the tack."

I have it in my possession, a hoe shaped saddler's tack, 6½ lines in length, with a head measuring upon its face 2½ by 2 lines; I say hoe shaped, the shaft being attached to one side of the head.

If the above hastily written narrative should appear to you worthy, you are at liberty to use it, and attach such remarks as may suggest themselves.

PROLAPSUS OF AN OVARY.

By L. R. HOLMEAD, M. D., Chicago.

On July 21, 1861, I was called to see Mrs. B——p, aged 30 years, who has given birth to six living children, and had seven miscarriages. Her general health has been bad for

several months. I found her in great pain, which she described as a bearing down in the lower part of the abdomen, and more severe than any labor she had ever passed through.

About six weeks previous she had a miscarriage, with considerable loss of blood; and was just getting about. Her bowels being costive, she had the day before taken some cathartic medicine; and while at stool, felt something give way, which gave her such great pain that she could not help screaming. After taking a dose of opium she went to bed and was easy until the next morning, when the pain returned, with a constant desire for a movement of the bowels, but from the distress it gave her she was compelled to resist the inclination.

Fearing a misplacement of some of the organs of generation, I requested an examination, which she declined; I concluded to place her upon full doses of Opium, and Ol. Terebinth, gtts. viij, every 3 hours.

22nd—8 A. M. Pulse good. Tympanitis subsiding. Passed a comfortable night. Continued treatment. 10 A. M. Pain returned. Pulse very frequent and weak. Abdomen distended enormously. To the former treatment ordered warm fomentations, which gave some relief. Declined attending the case longer unless an examination was granted me, or, the privilege of calling counsel. Her husband suggested Dr. ———, and stating if we could not agree, that Dr. ——— should treat the case, and that I should continue my visits, and be released from all responsibilities. Dr. ———, upon making an examination, pronounced it an abscess in the cellular tissue between the Rectum and Vagina, just below the Os Uteri. I asked him how an abscess could cause such sudden trouble, he gave me no definite answer, but said that there could be no mistake about it, as he had had at least a dozen such cases that season. He described it as being a hard, immovable tumor, and thought that he could detect fluctuation.

Not being satisfied with his diagnosis, I yielded the treatment of the case to him, and continued my visits. He ordered the following: ℞. Quinine Sulph. ʒss.; Ext. Hyoscyami,

gr. xv; Ft. Pil. No. 15; S. one every two hours. Warm fomentations to be continued.

23rd—Continues about the same. Treatment continued.

24th—No improvement. Dr. ——— ordered ℞. Hydrarg. Chlo. Mit. Pulv. Opii. a a gr. v; Pulv. Ipecac, gr. iv; M. Ft. Pil. No. 10; S. one every 3 hours.

The same course of treatment was continued until the 29th, Dr. ——— visiting the patient in the mean time. No improvement in condition of patient, except occasional relief from pain for a short time. Dr. ——— expecting every day that the abscess would be in a condition to puncture.

Mr. B——p becoming dissatisfied, I proposed to Dr.——— to call counsel, which he thought not necessary, and stated that he was positive that he felt fluctuation, and that the abscess would break in a day or two.

He ordered: ℞. Hydrarg. Chlo. Mit., Pulv. Opii, a a gr. v; M. Ft. Pil. No. 10. S. one every 2 hours. ℞. Liq. Ammoniæ; Ol. Terebinth, a a ℥j; Ol. Olivæ ℥ij; M. S. use as a liniment over the abdomen.

30th—4 A. M.—Mr. B——p called upon me, saying something must be done for his wife, as her sufferings were greater than ever, and wished me to take the case in my own hands; which I declined, but proposed calling in Prof. J. Adams Allen, who was thereupon invited to see the case the same day. On digital examination, he found the hard tumor in the position above indicated. From its mobility, and the history of the case, suspecting its true character, after manipulating for a few minutes he had the pleasure of feeling it disappear from before the fingers, with immediate relief to the patient.

She was ordered a mild saline laxative and a pill of Hyoscyamus.

The laxative operated readily, but there was no further occasion for the pill. The patient convalesced immediately. Since, she has, upon two or three occasions, experienced some recurrence of the original difficulty, but a few hours confinement to the recumbent position has been followed by complete relief.

The right ovary, enlarged and heavy, had prolapsed into the recto-vaginal space, thus presenting to digital examination a well defined tumor.

The rarity of the accident, and the ease with which it was relieved, seem to render the case worthy of record.

The apparent fluctuation possibly depended upon a cyst in the ovary.

Similar cases are referred to by authors: (Vide Blundell Dis. of Women, p. 108. J. B. Brown, ditto, p. 179.)

The ultimate prognosis of the case is, of course, doubtful, as the displacement may recur at any time, or result in oppressive, or even fatal growth of the ovarian tumor.

A FREAK OF NATURE IN AN ENTIRE FAMILY OF CHILDREN.

AN IMPERFORATE OS UTERI.

By M. M. EATON, M. D., of Peoria.

April 23rd, 1862, was called with Dr. Hamilton, to go to Fond du Lac, in Tazewell County, to amputate a lot of supernumerary toes and fingers.

We found our friend with a family of three boys, all of whom had been born with six fingers on each hand, and six toes on each foot. Two of the boys had previously been relieved of their superfluous fingers. Six toes to a foot on all of them still remained, and caused the feet to be so wide that common shoes could not be worn, and made the feet look quite awkward. We administered Chloroform, and removed all the supernumerary toes and fingers, the wounds healed well, and left useful and well shapen feet and hands.

The father and mother were both well formed and healthy, and they told me that they never had known of any of their relatives having had any deformity of any kind.

Truly, there are many works of what is called nature, we, short-sighted mortals, cannot explain.

And this reminds me of the case of a married lady who consulted me last fall, on account of never having had the menstrual flow in her life. She said she had been married three years, was 19 years of age, lived several miles up the river in a small village; was a native of Ohio. Her mother, who came to the city with her to consult me, said she had never had her courses, and she wanted I should bring them on, if possible. I told her that I never prescribed for a case without knowing as much as possible relative to it, when there might be doubts whether she were well formed, I therefore, requested an examination; to which assent was given, adding that "she had been treated by several physicians in her place almost continuously, for the last four or five years, but no one had asked an examination." By examination, I ascertained that the breasts were undeveloped, and by examination found that the hair on the Mons Veneris was absent, and also, that her vagina was perfect. By the speculum, on most careful search, no opening into the womb could be found, although the womb was of usual size. I called in Dr. Frye, who verified my diagnosis. I told Mrs. H., although she was well formed (with this exception) I thought no operation was called for, and that the less medicine she took the better.

I believe in her case there is an absence of the Ovaries as well as an imperforate *Os Uteri;* otherwise, I should advise differently. A little reflection on this case will show how a false modesty on the part of a physician, or his patient, may sometimes be the means of great embarrassment and want of success with the former, and much trouble and unnecessary expense, and often positive injury to the latter.

EDITORIAL AND MISCELLANEOUS.

THE PREVAILING EPIDEMIC IN THE NORTH-WEST.

Messrs. Editors :—An epidemic has been and is still, to some extent, prevailing in this vicinity, that I should like very much to have your opinion on, and suggestions in regard to, either by letter or through the columns of your "Journal." I diagnosed it, Cerebro-Spinal Meningitis, and I had able counsel who concurred. But that you may judge for yourself, I give you the symptoms. The disease is ushered in with a chill, or shivering, which, the patients say, is not like an ague chill, but a shivering without much sense of coldness. The chill is preceded by intense pains in the head, back of the neck, and in various parts of the body, but occasionally in one of the extremities only. The pain and aching continues with greater or less severity throughout the course of the disease. The chill in some instances lasts twelve hours, but in most not over three or four. Violent vomiting soon sets in, and continues for about twenty-four hours; provided, the patient survives so long. Constipation very obstinate. In some cases, it is impossible to get an evacuation per rectum by cathartics introduced into the stomach. Extremities cold as clay, and very difficult to warm for a day or two. Pulse weak, but not much accelerated. Tongue little, if at all coated, but of a peculiar purple or livid color, at first, but in the course of the disease becomes covered with an "ashy" colored coat. In twenty-four or forty-eight hours, sometimes less, an eruption appears; on the face, looking like measles, but on other parts of the body the spots are much larger and extremely sensitive, the slightest touch often causing the patient to awake from a

sound sleep with a cry of pain. In a few days the patient becomes sore all over, and the joints so stiff, that it is with great pain that he can be moved at all. In some cases, the spots, at first, are of a dark purple, almost black color, in others scarlet, but soon turn dark; these are the most favorable cases for recovery. The pupils are dilated, the left one most, and generally the right side is totally or partially paralyzed—some patients become deaf, dumb, or blind, or all three together, and one, though convalescent for over two weeks, cannot yet speak. Most of those attacked are delirious, but the delirium is not active. Out of thirteen cases treated by myself five died, and another died without treatment. There have been no new cases for more than a week. Death occurred in less than twelve hours in three of the cases. The treatment was actively stimulant and tonic, irritants to the spine, in two cases blisters—and bathing with hot brandy and capsicum. The result was not very flattering, but my experience has brought me to the conclusion, that the only hope of saving life, as the disease occurred here, is prompt, active and powerful stimulation, followed with tonics. The locality in which the disease occurred is on rolling prairie. With one or two exceptions, those attacked did not have chills last fall, so that lingering intermittents could not have been the cause of the attack.

There have been more rain and mud here this winter than for many years. The consequent dampness of the atmosphere may have been an exciting cause.

Yours respectfully,

Boswell Ward.

This is one of a large number of letters received on the same subject during the last season. The accounts given by correspondents are very similar, although the incursions of the disease have been observed over not less than five States of the North west.

Of it, very little is found in the text books—nevertheless, it may be said to be well known to many in the profession. Well

known to the extent at least of diagnosis—unfortunately, not yet very well known so far as reliable therapeutics are concerned.

It occurs both in the sporadic and epidemic forms. Of the former, several well marked cases have been brought to our notice in this city quite recently; of the latter, many of the interior towns have afforded sad evidences.

Although having the termination *itis* to its technical appellation, it is far from being an inflammatory affection, in the ordinary acceptation of the phrase. There is a modification of the nutrition in the cerebro-spinal substance, with often resulting destruction of the tissues, but the changes are more like those ensuing in typh diseases or cholera than active inflammation.

In observing the phenomena presented, we can scarcely avoid the belief that they are caused by some specific *materies morbi*, and yet it is pretty clear that this must have been generated within each system by coincidence of external causes operating upon it. The causes operating without—the poison generated within. Particular stages of the disease present phenomena strikingly like those resulting from uræmic poisoning.

According to our own observation, it is more likely to occur in winters with a variable temperature—where a few days of intense cold are rapidly followed by days of thaw, mud and rain. Neither uniformly cold nor warm weather are so likely to engender it.

It does not seem to select those previously debilitated by disease in preference to the robust. It does not select any particular age or sex, neither are any exempt. Nor does it seem to be influenced materially by localities—those upon the highlands and those upon the lowlands—the rich and the poor are quite impartially seized.

The methods of attack are various, and yet all coincide in representing a potent influence upon the nervous system. More commonly, this is manifested by distinct *rigor* gradually

passing to general coldness, absence of pulse in the extremities and coma, very like that of pernicious remittent; and this without any marked local symptoms.

At other times, *pain* is the prominent symptom—pain more frequently in the occipital or nuchal region, but very often in other parts of the head, in the shoulders, trunk, hips or extremities. This pain is usually sharply circumscribed within a small compass, but may extend. It becomes more and more intense until the patient grows delirious, apparently from its severity, and then ultimates in coma, after which the disease takes the same course as when ushered in by the chill. Or it may speedily be replaced by the rigor.

The *suddenness of the attack* and rapid progress to grave symptoms, are very characteristic.

The delirium which ensues upon the pain, or which supervenes upon the coma, is of the most violent character, incessant jactitation, and often vociferous and incoherent cries.

Sometimes at the very outset, but usually not until the lapse of several hours, from three to twenty-four, there occurs a peculiar discoloration or eruption upon the surface, but exceedingly variable in its form. Sometimes it consists of a simple petechial point, and again of a dark discoloration of a large surface like ecchymosis, or rather the subcutaneous extravasation of purpura. More frequently there is no elevation of the cutis, but occasionally there is an elevation of the epidermis, like bullæ, with thin, dark sanious contents.

We have never seen it look like the eruption of measles, as suggested by our correspondent, but very often somewhat like the mulberry rash of continued fever.

The form of the eruption is not diagnostic. Mainly, the evidences presented by it are those of a diffluent, disintegrated state of the blood. The prognosis is modified by the brightness or lividity of the hue of the discoloration.

The eruption, or discoloration, is not always present, but so frequently as to well entitle the disease to its popular name, "spotted fever."

Among the most remarkable symptoms may be mentioned the persistent tonic contraction of the muscles of the back of the neck, sometimes deepening into opisthotonos; convulsions; paralysis, particularly of the optic and auditory nerves; remarkable soreness of the surface and joints to touch or motion.

There may be intolerance of light and sound, but oftener the special nerves involved are paralyzed. While there is the most excruciating hyperæsthesia of the general surface, the finger may be placed on the cornea with no flinching by the patient.

The vocal muscles may be paralyzed, as also those of deglutition, but these forms are more rare. Hemiplegia is not infrequent; or the paralysis may be confined to a single extremity. Strabismus, unequal size of the pupils, twitching of the facial muscles, &c., &c., are incidental symptoms.

The pulse, at the outset, is small, thready, tremulous, irregular, soft, and speedily lost at the wrist. On the occurrence of reaction or remission it increases in fullness and force. About always during the primary stage it is slower, but during reaction it may run up to 120 or 150.

The skin in most cases is dry as well as cold, but in perhaps 25 per cent. of the cases it is moist. In all cases it is quite variable in this respect at different hours of the day.

The tongue is more or less enlarged and flabby, with indentations of the teeth upon its edges. It is pale and moist, with a coating of a pale ash or white color passing to yellow and brown, but this is not distinctive.

Nausea and vomiting are occasional, but not constant symptoms, the matters thrown up being the normal contents of the stomach, or, in bad cases, decomposed blood, bile, mucus, &c.

The bowels are variable. Some cases are natural, in others there is obstinate constipation, and in others still, severe diarrhœa with discharges of grumous and offensive matters.

The respiration is ordinarily laborious and irregular, sighing, and perhaps stertorous, more frequent than normal, while

consciousness continues, but becoming slower with advancing coma.

The urine is generally scanty, depositing a plentiful sediment intermixed with ropy mucus, and disorganized blood corpuscles. But in some instances, we have known the urine abundant and of low specific gravity.

The first stage may terminate in death in a few hours or, after an interval of from six to twenty-fours, then may occur a marked remission of the symptoms—a very deceptive remission, leading both physician and patient to believe the difficulty pretty much over. Supervening upon the remission rapidly, or it may be upon a gradual awakening from the comatose state, there will be intense febrile excitement, great heat of the surface, rapidity and strong tension of the pulse, arterial throbbings, flushed face, turgidity of the conjunctiva, with extreme thirst, &c. This is liable to be attended with the highest grade of delirium and frantic muscular jactitation, requiring several attendants, perhaps, to keep the patient in his bed.

The delirium may, after a while, merge in coma, apparently from utter exhaustion; or it may gradually moderate in violence and pass into the low muttering character, with subsultus, &c., the patient being laid upon his back with the extremities fixed and painful to touch and motion; or in some cases turned rather to the prone position, with, in either case, the posterior muscles of the neck fixed rigidly, drawing the head strongly backwards. Occasionally it is drawn laterally backwards, but is always in a state of rigid immobility.

In this stage the bowels are usually inactive and the urine either scanty or wholly retained. The skin is hot, but not infrequently reeking with a peculiarly offensive perspiration. Irregular or partial sweats are very common. Convulsions, paralysis, pain, and other evidences of central nervous disorder, are largely aggravated.

The patient may die in this stage, or the disease may pass on with irregular febrile phenomena into the low, lingering

typhoid stage, stretching over even forty or sixty days before the establishment of a tedious convalescence. The low fever which so often supervenes upon severe attacks of Asiatic Cholera much resembles it.

From the outset there will be presented intermingled symptoms, according to the involvement of particular organs in secondary lesion. The lungs are especially liable to severe or even fatal disorder, so much so indeed, as by the gravity of its manifestations almost entirely to mask the original disease.

Dr. Condie, in a note to the American edition of Watson's Practice, includes a description of this form under the head Typhoid Pneumonia, but it is unnecessary to say that the disease described is but the one now under notice with secondary complication. Ulceration of the throat, the writer has observed as a complication in several cases—the destruction of tissue proceeding of itself to an alarming extent.

Above all, Erysipelas is the most dangerous of complications. It is easily kindled upon the slightest abrasion of the surface, and often, without such a nidus, attacks the face and neck, extending to the scalp, or more rarely seizing the extremities. This erysipelatous affection is apt to be exceedingly destructive to the part attacked, giving rise to foul, slough ing sores, rapidly wearing out the patient by exhaustion.

Some of our friends who have observed this frequent concurrence of erysipelas, have been so struck by it as to believe the disease essentially an erysipelatous inflammation of the cerebro-spinal tissues, as also of those organs involved secondarily.

The abdominal viscera sometimes experience the full force of the morbific influence, but in greater part are comparatively little disturbed.

Epistaxis, hæmatorrhœa, hæmatemesis, and hæmaturia are occasionally present to a dangerous extent.

Among the sequela we note, deafness, blindness, partial paralysis of motion, tuberculosis, albuminuria.

Marasmus in both children and adults, and phthisis in the

latter are especially common. The constitution seems broken down, and perhaps years elapse before the patient recovers his original vigor.

With regard to *post mortem* appearances there has been much apparent discrepancy of description. But by attention to one single fact this can readily be explained, and that is, the stage of the disease at which death occurred. It is also necessary to separate incidental complications from the primary affection.

If the patient die in the first stage within a few hours from the attack there may be very few signs of local change. The blood will be found settling to dependent portions, and with a loose, gory and diffluent clot. There will be found stasis of blood in the capillaries of the cerebro-spinal meninges, particularly the pia mater and dura mater, rarely of the arachnoid. The superficial vessels of the convolutions will be distended, and those upon the walls of the ventricles likewise full, presenting here and there spots like ecchymosis, though more florid in hue. Sections of the cerebral substance will show a similar condition of the bloodvessels, as manifested by the large red points on cutting across them. The medulla oblongata and spinal meninges and cord at the upper part will exhibit similar appearances. The stasis of semi-dissolved blood is so considerable that the grey and white tissues gain a pinkish tinge.

More or less circumscribed softening is found, usually involving the cortical substance of the cerebrum, the inferior surface of the cerebellum, and the floor of the lateral ventricle. In fine, a lessening of the firmness and density of the whole mass is evident on careful inspection. Effusion of discolored serum into the cavities is present now and then to a large amount.

If the case has run on to high reaction, all the results of inflammation may be present. In this case, the arachnoid is apt to be thickened and with loss of its transparency. In the exuded matters are found pus and lymph corpuscles, or the

exuded lymph forms a quasi membrane, loose, creamy, and readily broken down, upon the surface or along the course of the large vessels. The greatest quantity is at the base of the brain, and always at the optic commissure. It is also stated to be found on the corpora quadrigemina, the medulla oblongata and around the third pair of nerves where they penetrate the arachnoid membrane. Wherever the exudation takes place it is likely to be stained by the dissolved hæmatin.

In the spinal region, the morbid changes affect mainly the meninges, the substance showing little modification of structure, the most observable change being softening. The exudation, discoloration and softening are most observable about the roots of the cervical nerves.

The thoracic and abdominal lesions present nothing distinctive. Where the lungs become involved there are the ordiary evidences of stasis of blood and effusion, or where the later stage is reached, the usual results of inflammation. The same remark may be made with regard to the intestinal tube.

It is proper to remark, that whilst in about every case there is on *post mortem* some visual evidence of local disease of the cerebro-spinal region, nevertheless, in very many this evidence is very slight. The disease is capable of killing the patient speedily or slowly, and yet leaving behind it no trace of its footsteps. But the only constant changes, when any are present, are in this region. Here, as elsewhere, the facts teach that the immediate molecular changes, upon which life and death depend, are beyond the sphere of either our aided or unaided observation. We necessarily infer their existence, precisely as we infer the reactions of a chemical mixture by observations of results and of things which we can see and handle, and weigh.

In common with many other potent influences which suddenly strike down the powers of life—the cause or causes of this terrible disease may produce at once necræmial symptoms, so profound, that particular manifestations of the special cause will not take place. We shall see that thus far the diagnosis

is not of great importance. Under this condition the most dissimilar causes coincide in effect. Malignant typhus, small pox, scarlatina, rubeola, diphtheria, Asiatic cholera, erysipelas, pernicious remittent, uræmia, &c., &c., are severally capable of producing this condition.

In this case, an overwhelming cause acts especially upon the cerebro-spinal centre, or, secondarily, upon other organs. The blood from the beginning is poisoned and scarce living, and death may ensue from this poisoning of the blood, or later from the local changes in the brain and cord, or in other instances, from involvement of other vital organs. The only forms of disease with which it is liable to be confounded are pernicious remittent (congestive fever) and typhus.

Yet, be it observed, in the progress of both these forms, cerebro-spinal changes may occur which render the diagnosis impossible; and this need not be deemed unfortunate, because at the same time it is unnecessary. Since enlightened medical men have ceased to regard diseases as entities, and no longer rely upon a routine treatment, the diagnosis of names has yielded place to the search for causes and conditions; and treatment has been placed upon a broader and more certain basis.

The reader who has carefully noticed the peculiar disturbances of the nervous system and muscular apparatus portrayed in the communication of our correspondent, and further designated in our own remarks, cannot fail to see that they are exceedingly rare in the so-called congestive fever of "malarious" districts. There is no periodicity about it. It cannot be merely a severer form of that fever, for it occurs in districts, indiscriminately, where that fever is known and where it is not. It occurs at a season of the year when pernicious remittent notoriously loses its virulence, and, indeed, is scarcely ever present save in cases which have been especially liable to attacks of periodical disease and whose constitutions have been broken down by previous disease. Briefly, the paralysis of special sensation and voluntary motion; the hyperæsthesia

of the surface and joints, or circumscribed localities; the opisthotonos and convulsions; the petechiæ and vibices; the absence of periodicity, notwithstanding remarkable remissions; locality and times of occurrence; the sequela; these and many other particulars distinguish the disease from "congestive fever" with no difficulty or uncertainty. The influence of Quina is wonderfully diagnostic. In pernicious remittent it is prompt, powerful and certain. It is *the* remedy, if all others were ignored. In the disease under review it is scarcely noticeable in effect, and wholly unreliable—nay—comparatively worthless as a remedy. The "congestive fever" bows beneath its potent influence at once—the "spotted fever" scorns its impression.

Practically, the *physiognomy* of the two diseases is as diverse as the features of strangers.

Nearly the same distinctions separate it from "maculated typhus." It is not a severer form of typh disease, because it is rarely developed under those known circumstances which develop the latter. The nervous manifestations at the outset are wholly diverse; the mode of the attack and progress of the case are dissimilar, save that in some cases a low fever follows the primary lesions; but well marked, and indeed some of the very severest, cases are arrested and convalescence occurs without any such secondary fever.

The eruption, or rather extravasation of dissolved blood beneath the skin, is wholly unlike the maculæ of typhus or the roseolar spots of typhoid. Such extravasations do not constitute the peculiar eruption of the typh disease.

Typh fevers are the creation of *ochlesis*, of bad ventilation, filth and improper food. This clearly depends on some unknown meteorological influence, entirely apart from the accumulation of human beings in crowded places; independent of decomposing organic matter; independent of confined air.

It attacks equally all ages, from the infant to the veteran—the out-door laborer and the lady in the parlor.

Presenting some symptoms in common with the typh dis-

eases, its history and its *physiognomy* are as diverse from them as yellow fever is from bilious remittent. To confound them under one denomination, will render it necessary to re-write the history of typhus and make the term as comprehensive as the word *fever*.

It would be a happy circumstance if the treatment were as satisfactorily determined as the character of the disease. But, as before remarked, this is unhappily not the fact. But much can be done, and many lives saved which without it would certainly be lost.

The proportionate mortality in the early periods of this, as of other pestilential epidemics, is something frightful to contemplate; but there always remains this well established fact that, under about any respectable treatment, the fatality steadily diminishes with time, and the later cases will be quite controllable.

The quacks outside and inside the profession take advantage of this truth, and all ears are speedily stunned by the praises of particular remedies and methods which they go around braying about. "Specifics" for it are as plentiful as for cholera in every city, village and hamlet—but, alas, they fail miserably in the real trial.

Under our own observation has come treatment which ought to make all classes of created things, from angels to jackasses, weep.

We have seen men try to bring on a crisis—the *death-crisis* to which we alluded last month—by bloodletting. Others attempt the same thing by emetics and mercurial purges. Steaming is perhaps the most popular method of producing exhaustion of the feeble remaining powers of life. We knew one physician to give upwards of fifty grs. of morphine to a boy within a few hours to relieve his terrible pain and suffering. He observed to the writer that "the boy did not die of the disease!" Incalculable quantities of brandy and quinine have been ponred into the stomachs of the comatose; and there is no measurement of the amount of turpentine which has been thrown up *per rectum*.

The whole surface has been parboiled, roasted, and cauterized—What have we not seen done? We have seen the patient wrapped in the skins of animals torn reeking from the still quivering flesh; and have known an ox disembowelled and a tender girl put in the steaming cavity. There is no limit to human credulity—there is no bound to human assumption. Popular follies are the legitimate offspring of the dogmatic wisdom of some previous age.

Satisfactory treatment remains yet to be discovered. There are no specific remedies as antidotes. Yet experience points to certain things which seem to have done something—perhaps, *post hoc ergo propter hoc* after all.

And first we rank external stimulants. Rubefacients and artificial heat. Whatever will powerfully stimulate the surface, especially along the spine and the extremities. This not from any vague idea of internal pressure to be overcome by "determining to the surface," but by promoting tissue change in the parts and thus awakening energy of the circulation, and immediately excretion of effete matters and formation of new blood. The rubefacient becomes thus a general stimulant. With capsicum and mustard, ammonia and terebinthinates, pungent oils and friction—the means are abundant enough, and the practitioner can take his choice. Direct heat is a more questionable remedy from its ultimate sedative impression. The hot water or vapor bath speedily exhaust—still, when the surface is dry and rigid, these may be employed for a short time only. The alcoholic vapor bath is often serviceable. A potent stimulant is the application of ice for a few moments and then the alternation of hot epithems—this alternation to be frequently repeated. The intense local pain so often present in the primary stage may occasionally be controlled by large doses of morphia internally, but the amount required is apt to be so excessive that the hypodermic injection at the point of suffering will be found of greater advantage. But from the puncture there is always danger of erysipelas. The same remark applies to vesicants—primarily of excellent service, secondarily there is danger of sloughing sores.

Internally stimulants, boldly, but with due regard to their ultimate effect.

Thus the alcoholic stimulant, of whatever sort, when acting at all is quite disposed to produce the sedative impression or anæsthetic effect—checking tissue metamorphosis, hence the disappointment so frequently experienced on their administration during the cold stage, or in necræmial cases. The alcohol should be given only in moderate amount and combined with capsicum, piperin, monarda, or similar aromatic stimulants The Ol. Monarda here, as in Asiatic cholera, will be found quite efficient. Or Ethereal preparations, especially the Chloric Ether, in full doses with Sp. Cardamon Comp., Carb. Ammon. and Capsic. in full doses, answers well in some cases.

In our experience, the Tincture of Cantharides in full doses, is perhaps the most valuable of all internal stimulants. From twenty to forty drops every hour, until reaction ensues.

Where there is any appearance of erysipelas, or where there are evidences of dissolution of the blood, as evidenced by the deep livid shade of the spots, or by passive hæmorrhages, the Muriated Tincture of Iron should be simultaneously administered. Coinciding with the general effect of the Cantharides, it seems to especially prevent further destruction of the blood and facilitate its repair. Besides, it lessens the tendency of the Cantharides to injure the kidneys and produce strangury. But the awakening of the nervous system and of the excretory energy as shown by this result is scarcely to be considered as other than a favorable omen. Of course, when this occurs, the Cantharides should be replaced by some other stimulant. From ten to twenty drops of the Tincture of Iron should accompany each dose of the Cantharides, and the mixture be largely diluted on exhibition.

If convulsions occur, or pain be dangerously intense, anæsthetics by inhalation may be employed, and we should very much like to try here, as we have not yet had an opportunity, the Protoxide of Nitrogen, or "laughing gas." Theoretically

and by analogy of its use in other cases, we believe it would be found an invaluable remedy. Its energetic stimulating power would probably favor speedy reaction.

We have not noticed any especial advantage from Quinine in the first stage, although we have given it in doses varying from two grains to half a drachm every hour. The stimulating effect of the small dose is inappreciable; the sedative and diaphoretic effect of the large dose is objectionable. But when the deceptive remission occurs, we have fancied some benefit was gained by several full doses, at intervals of one or two hours—the sedative effect seemed to lessen the severity of the subsequent exacerbation, although we have found that a hundred grains thus given, would not prevent its access.

At this time, something appears to be gained by relieving the bowels by a moderately stimulating cathartic, particularly when the cold stage has left behind it decided engorgement of the portal system. By this means the exacerbation is evidently ameliorated, and the tendency to pass afterwards into a low form of fever sensibly lessened. We usually, for this purpose, combine calomel with gamboge, rhubarb and soap, which usually operates efficiently in six or eight hours. Beyond this, or some milder cathartic, we have rarely found it useful to employ purgation. The patient cannot be cured by attempts to turn him inside out with either emetics or cathartics.

If, during the stage of excitement which now follows, the urine becomes tolerably free and charged with its solid constituents, the patient may be reckoned safe, but if it is suppressed the case is one of extreme danger. The practitioner is apt to be deceived by the apparent excitement, and hence to resort to excessive antiphlogistic measures—but this is a dangerous error. Collapse impends almost momentarily, and it is necessary to be on guard.

Saline diuretics, very moderate doses of the usual sedatives, and perhaps anodynes, may be used, but bleeding, vomiting and purging, or large doses of sedatives are out of the question. Ablutions with cold water, or the tepid bath, or show-

ering the head, we have found in this case, even more useful than in the similar stage of remittent.

When in doubt, our own experience teaches us to say, *stimulate* even here. Destructive changes will thus be prevented, the liability to collapse lessened, and the tendency to tedious low fever, with doubtful final result, abated. But better do nothing than to do wrong or mischief.

The subsequent treatment of the disease is sufficiently simple, being merely that of the low fever, modified by such local complications as happen to be present. We have not time to follow up the subject at present. Indeed, we had intended but a few words supplementary to our friend's communication, but have been insensibly led along to a length of remark wholly unexpected.

Will some of our correspondents, where the disease is, or has been prevailing, prepare a communication for our pages on this subject?

PROPOSED MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

We received too late for insertion in the last number, and after the notice which it contained had been written, a call signed by Dr. N. S. Davis, and purporting to be authorized by the "Committee of Arrangements," for a meeting of the American Medical Association, to take place in Chicago on the first Tuesday in June, 1863. On enquiry of some members of said Committee we find they know nothing about said call. The Committee without any authority adjourned the meeting of 1861–1862; and now some of them, equally without authority, have announced a meeting under circumstances quite as unfavorable as have existed in former years.

If a meeting is desired we conceive it devolved upon the State societies, other organized bodies, including teachers in Colleges and Hospitals, to intimate their wishes to that effect. This, as far as we are informed, has not been done in more than one instance.

The Association meeting in June can have no claim to be considered "National," and must if convened but favor the effect of forever perpetuating its sectional character. For ourselves we do not despair of the return of better days, when our brethren now in the army and numerous Union men in the Southern States shall join with their brethren in the North in meetings truly National in their character. We know that some most active in the matter do not share this hope, probably do not desire such a result, but it is a conviction to which we shall cling to the last.

The excitement of civil war is not favorable to the calmness required in scientific meetings. The National Association of Science has thought it wise to suspend its annual assemblage. Several of the State societies have followed its example. From such no representatives can be expected.

The time appointed is peculiarly unfortunate, being the day on which a great "Canal Convention" is to convene in this city. Citizens will be called upon to open their houses for the accommodation of the members of this latter body. Several eminent medical gentlemen will find it necessary to devote most of their time to it. Many will desire to be present to listen to its proceedings. If, therefore, a general attendance is desired, we would suggest that the second Tuesday of June be substituted for the first Tuesday. We make this suggestion in the interest of the profession of the city who will desire to give to their friends a cordial and hospitable reception whenever they may do us the honor of a visit.

D. B.

HONORS TO THE DEAD.

A meeting of the commissioned officers of the 9th regiment Illinois cavalry, was held at the headquarters of the regiment, Helena, Arkansas, on the 21st of February. A preamble and resolutions, testifying their sincere respect for the late Surgeon Charles Brackett, who died at that place on the 21st, were unanimously passed as follows:

Resolved, That in his death, we have lost not only an accomplished and scientific surgeon, who labored among us with the most self-sacrificing zeal, but a friend endered to us all by his pure and blameless life, and that we will cherish the memory of his good deeds, his great heart, and his earnest truthfulness.

Rssolved, That in his dying words, "I am glad that I have always tried to do right," a rich legacy to his children, we recognize the true character of the man, who from the most exalted patriotism, risked his feeble remnant of life in the service of his country, and died a martyr to his profession and his country's cause.

Resolutions to wear the usual badge of mourning, &c., were adopted.

We take the above notice of the death of Dr. Brackett from the Chicago *Tribune* of the 18th April. The doctor was for many years an occasional contributor to the pages of this Journal, and will be remembered as a writer of unusual originality and clerness. His devotion to the profession was only exceeded by that to his country, whose service he entered at an early period of the war.

Among the thousands of martyrs to the good cause not one was more deserving than he, and the members of the profession will join with the officers of the 9th Illinois Cavalry in marks of regret at his loss and in tenders of sympathy to his friends and family. D. B.

Ann Arbor, Mich., March 1st, 1863.

Messrs. Editors:

It is said *tempora mutantur et nos mutanur cum illis.* Do not believe it. The times change, but we continue unchanged and totally unmindful of the times. The nation is shattered to fragments—but what matter? We remain blissfully unconscious.

That which was only a rumor last month has since hardened into an event. I have heard that an announcement has been issued by the Chairman of the Com. of Arrangements, of an attempt to organize the *American* Medical Association on a sectional basis. The uneasy gentlemen who attempted this same action in 1861 and 1862, have succeeded thus far in 1863. They are literally seeking to expand their bubble reputation

at the cannon's mouth. Hopeless of achieving more than a contemptible mediocrity in their respective home spheres, they strive to gain an arena where points of order and noise, intrigue and "deportment" may yield a factitious notoriety—easily to be mistaken by the groundlings for fame. We may expect floods of platitudes, and oceans of muddy wisdom. As the patenting of professinal tools of all sorts is prohibited by the code, we may expect to see sundry dray loads of splints, cutlery, stretching apparatus, and diagrams, on the floor, and in the ante-rooms of the Association, so that they may be carried from thence in triumph with its *Imprimatur* upon them.

The ambitious are already pricking up their ears as they read over the names of the offices to be filled. Our *quondam* friend P. is already arranging his glossy curls, and practicing before the mirror the attitudes he will strike and the gestures he will indulge—wondering, meanwhile, whether a Northern audience will be as much astounded to think that one small head could hold all he knew, as of yore, was that which now, alas, has gone away into Dixie's melancholy abyss of secession. Will he make the same speech here in the shadow of the Chicago Platform that he did there? And, if he does, will the Chairman of the Com. take up on that side or the other? But the subject grows upon us, and we forbear, with a few suggestions:

First, That the Com. reconsider their programme and fix the meeting at the same time with the great Canal Convention. This would be likely to ensure a better attendance.

Second, That as these are "ticklish times" and there are many angry men on both sides, each of the delegates be requested to come fully armed. This second suggestion is important, because everybody knows that the inevitable negro, and the war, will be lugged into the first, and probably every, speech made during the session.

Third, That the members who wish to advertise themselves, or their wares, be assessed to pay expenses. If they will travel, let them be voted Pickwickian consent by the Com.

Fourth, That the late President of the Ohio State Medical Society be requested to read his address on retiring from that position, to the Association and as many invited guests as the hall selected will contain. (The only objection to this suggestion is, that the second one above stated might thereby be more imperatively demanded, as a rule of order to the exclusion of the police.)

Fifth, That inasmuch as the exodus of so large a number

of able-bodied men from Eastern and Middle States, which have not supplied their military quotas, to Illinois, which has surpassed its allotment, might be mistaken by the authorities as an attempt to escape the draft,—therefore let no delegates be admitted who have not passed the age of forty-five.

SOJOURNER.

[We beg leave to call the attention of our correspondent to the fact that the meeting is set down for the same day with that of the Grand Canal Convention. We suggest to him to bring along a tent and rations. We will divide our own shelter and food with visitors so far as they will go; but there is a physical limit which even our most expansive benevolence cannot pass.—ED.]

Homœopathy.—A recent graduate from Hahneman College in this city, a resident, we believe, of Sangamon county in this State, immediately after his graduation secured the position of contract surgeon at the Mound City Hospital.

The question arises how came this about? But for him there is no further question. It seems the poor boy really believed the twaddle he had been taught in the College. Soon after his entering upon his duties, he was attacked with "Congestive Chills" (Pernicious Remittent). The second day he died. There was nothing between that death and a long life but a few grains of Quinine. Pained as we always are at the death of young men, we can not after all but think of those soldiers whose lives will be saved from similar attacks ————!

But again we ask who is responsible for this gross outrage upon the profession—and what is beyond and above that, the rights and safety of our brave soldiery?

The Clinics.—Daily Clinics are attended at Rush Medical College, at 3 o'clock P. M. A large number of patients offer themselves for treatment, and the opportunity thus afforded to students is very superior. Our city is increasing so rapidly in population that this department of medical and surgical teaching is rapidly assuming great prominence. The facilities for practical illustration of the nature and treatment of both medical and surgical diseases, the ensuing session of the College, will be increased to a degree heretofore unattained at the West.

A Glimpse of Army Practice.—Elmer Nichols, M. D., of the 118th Ill. Vol., was detailed on the 24th of January to take charge of 328 sick on board the steamer J. C. Swan, *en route* from Vicksburg to St. Louis. From Vicksburg to Memphis they had neither medicines nor hospital stores in noticeable amount, but at Memphis a few supplies were secured. No assistant whatever was allowed him during the whole seven days' trip, notwithstanding he himself was scarcely recovered from recent sickness. So anxious were the regimental surgeons to get rid of their sick, that men were sent on board in an actually dying state. By working sixteen hours *per diem*, he could manage to give each patient an average of *two minutes and some seconds* attendance. *Seventy-six* died on the trip up!

This is the kind of labor imposed on those surgeons who are unhappy enough to wear Major's shoulder straps, and yet the abuse lavished upon them as a class would lead one to think their lives a perpetual holiday, and that they were rioting in luxury and ease.

A New Excretory Function of the Liver.—Prof. A. Flint, Jr., in the *Am. Jour.*, Oct. 1862, discusses the great importance of *Cholesterine* an as excrementitious substance, urging that: "What the discovery of the function of urea has done for diseases which now come under the head of uremia, the discovery of the function of Cholesterine may do for the obscure diseases which may hereafter be classed under the head of Cholesteremia."

In accordance with the opinion of the best physiologists, Prof. F. concludes the bile to be partly excrementitious and partly recrementitious. A series of carefully considered and managed experiments are given, and from their results, taken in connection with those made by other experimenters, he arrives at the following conclusions:

1. Cholesterine exists in the bile, the blood, the nervous matter, the crystalline lens, and the meconium, but does not exist in the feces in ordinary conditions. The quantity of cholesterine in the blood of the arm is from five to ten times more than the ordinary estimate.

2. Cholesterine is formed, in great part if not entirely, in the substance of the nervous matter, where it exists in great abundance, from which it is taken up by the blood, and constitutes one of the most important of the effete or excrementitious products of the body. Its formation is constant, it always existing in the nervous matter and the circulating fluid.

3. Cholesterine is separated from the blood by the liver, appears as a constant element of the bile, and is discharged into the alimentary canal. The history of this substance, in the circulating fluid and in the bile, marks it as a product destined to be gotten rid of by the system, or an excretion. It pre-exists in the blood, subserves no useful purpose in the economy, is separated by the liver and not manufactured there, and, if this separation be interfered with, accumulates in the system, producing blood-poisoning.

4. The bile has two separate and distinct functions dependent on the presence of two elements of an entirely different character. It has a function connected with nutrition. This is dependent on the presence of the glyco-cholate and taurocholate of soda, which do not pre-exist in the blood, subserve a useful purpose in the economy, and are not discharged from it, are manufactured in the liver and peculiar to the bile, do not accumulate in the blood when the function of the liver is interfered with, and are, in short, products of *secretion*. But it has another function connected with depuration, which is dependent on the presence of the cholesterine, which is an *excretion*. The flow of the bile is remittent, being much increased during the digestive act, but produced during the intervals of digestion, for the purpose of separating the cholesterine from the blood which is constantly receiving it.

5. The ordinary normal feces do not contain cholesterine, but contain *stercorine* (formerly called seroline, from its being supposed to exist only in the serum of the blood), produced by a transformation of the cholesterine of the bile during the digestive act.

6. The change of cholesterine into stercorine does not take place when digestion is arrested, or before this process commences; consequently, stercorine is not found in the meconium, or in the feces of hibernating animals during their torpid condition. These matters contain cholesterine in large abundance, which also sometimes appears in the feces of animals after a prolonged fast. Stercorine is the form in which cholesterine is discharged from the body.

7. The difference between the two varieties of jaundice

with which we are familiar, the one characterized only by yellowness of the skin, and comparatively innocuous, while the other is attended with very grave symptoms, and is almost invariably fatal, is dependent upon the obstruction of the bile in the one case, and its suppression in the other. In the first instance, the bile is confined in the excretory passages, and its coloring matter is absorbed, while in the other, the cholesterine is retained in the blood, and acts as a poison.

8. There is a condition of the blood dependent upon the accumulation of cholesterine which I have called *Cholesteremia.* This only occurs when there is structural change in the liver, which incapacitates it from performing its excretory functions. It is characterized by symptoms of a grave character, referable to the brain, and dependent upon the poisonous effects of the retained cholesterine on this organ. It occurs with or without jaundice.

9. Cholesteremia does not occur in every instance of structural disease of the liver. Enough of the liver must be destroyed to prevent the due elimination of the cholesterine. In cases in which the organ is but moderately affected, the sound portion is capable of performing the eliminative function of the whole.

10. In cases of simple jaundice, when the feces are decolorized and the bile is entirely shut off from the intestine, stercorine is not found in the evacuations; but in cases of jaundice with cholesteremia, the stercorine may be found, though always very much diminished in quantity, showing that there is an insufficiency in the separation of the cholesterine from the blood, though its excretion is not entirely suspended. After death, but a small quantity of bile is found in the gall-bladder.

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ORIGINAL COMMUNICATIONS.

DIRECTIONS FOR USING BROMINE.

By Dr. M. GOLDSMITH.

U. S. Sanitary Commission, Louisville, Feb. 27, 1863.

The following formula is that used in the preparation of the accompanying preparation of Bromine:

Water, ʒ 10; Bromide of Potassium, ʒ 2½; dissolve the Bromide of Potassium, and add Bromine ʒ 10.

DIRECTIONS FOR USE.

First—For Fumigation: Place one ounce of the fluid in a glass tumbler, and place the vessel, one or more, in, according to dimensions of the apartment, at different points, in number sufficient to secure the constant presence of the odor of Bromine in the ward.

It must be borne in mind, that if the vapor of Bromine comes in contact with the vapor of water, Hydro-bromic Acid is formed, and that, therefore, when there is much of the vapor of water disengaged in the apartment, the quantity of the vapor of Bromine must be correspondingly increased.

Second—As a Topical application, the Bromine is used in *vapor*, or in *substance.*

For the topical application of the *vapor*, a piece of dry lint is to be placed over the diseased part. Over this is to be placed another piece of lint, moistened in the solution of Bromine; over this, another piece of lint spread with simple cerate, and the whole to be covered with oiled silk and bandage, so arranged, as to retain the vapor in contact with the diseased surface as long as possible. The Bromine is to be removed as frequently as it is exhausted by evaporation.

As a topical application in *substance*, in Hospital Gangrene, Diphtheria, Gangrene of the tongue, *et id omne genus.*

The parts are first to be dried by the application of Charpie. And if the sloughs are thick, they should be trimmed out with scissors and forceps, as much as possible; for the thinner the slough, the more effective is the remedy. The parts being again dried, the solution is applied by means of a mop, or with a pointed stick of wood, in quantity sufficient to saturate the slough. If the sloughs undermine the skin, or dip down into inter-muscular spaces, the Bromine must be inserted by a glass syringe, or with the pointed stick. If the application has been effectual, all odor from the diseased surface ceases, and the sloughs become somewhat hardened. The remedy should be re-applied every second hour, as long as any odor of putrefaction is present, or the sloughs appear to be diffluent. It is not always necessary, especially when the slough's covering are diffluent and thin, to use the solution in full strength. As the disease subsides, the strength of the solution may be diminished by the addition of water.

The points, in the application of the Bromine, to especially attend, are: 1st. That it should be applied in strength and frequency sufficient for the impregnation of the whole of the sloughs. And, 2nd, to this end the application should be made by the surgeon himself, and never entrusted to a nurse.

After the topical application of the solution, the part, when so situated as to make it practicable, should be subjected to the influence of the vapor—see page 1.

Surgeons will do well to bear in mind, that Bromine is a new remedy for the purposes above indicated. The accompanying directions are those followed in the hospitals at this place. It may be found advisable to modify them, as experience accumulates with reference to its use. It is, therefore, earnestly recommended that the subject be studied diligently; that the effects of the remedy be carefully watched; and the application varied, as new facts are developed in the course of its application.

[Remarks.—We have long been in the practice of using the vapor of Iodine in indolent ulcers, and Tr. Iodine in sloughing wounds, in the manner here recommended for Bromine. Dr. Mitchell, in his work on *materia medica*, recommended the vapor of Iodine as a disinfectant, and stated that its presence prevented the communication of contagious diseases.

Iodine, Bromine and Chlorine have similar chemical relations to animal substances and destroy all poisons of the putrefactive class, and some whose classification is doubtful as that of serpents. The advantage of Iodine and Bromine is that they are less active than Chlorine, and can be more thoroughly applied to wounds. Experience must determine which is to be preferred. D. B.]

MY DISSECTION WOUND AND WHAT CAME OF IT.

Dissection wounds and death are so commonly associated, that we would as reasonably expect an autographic obituary notice, as a similar sketch of a dissection wound. Notwithstanding this uniform fatality, I have had the pleasure of a very close interview with his grim majesty, and am still left to tell

of it. If every one keeps in as "good spirits" as I did, the terrors of death must be very much exaggerated. In fact, I felt that while Buck & Rayner's S. O. P. lasted I should have no occasion to conjure them from the vasty deep, and were it not non-professional would be tempted not to give my treatment, lest the accident become *epidemic.*

Mr. Van ——— of this city, became entangled in the gearing of his mill, while in motion, was injured, and kindly referred to me for surgical treatment by Prof. Miller.

I saw him first on the third of February, 1863. Upon examination, found his right arm fractured at the union of the lower and middle thirds, the radius broken at the union of its middle and lower thirds, and the ulna at the junction of its upper and middle, the latter a compound fracture, the parts around being considerably bruised. Besides he had some trifling bruises on the lower right side of his chest. The patient was unusually stout and robust, of the sanguino-lymphatic temperament, always enjoying the best of health.

Assisted by Drs. Shumway & Lynn, I dressed the fractures with splints lightly applied, leaving an open space about the compound fracture, and gave the patient an anodyne.

Saw him the next day, found he had slept tolerably well during the night, and having taken the anodyne pretty freely was quite free of disturbance. We moved him to his uncle's, on a bed in one of our street cars, the distance being about a mile, which was made easily and with little or no discomfort.

I then removed the dressings, and as the lower fragment in the compound fracture was very sharp, I clipped off its point with my bone forceps, in order to allow it to rest more firmly against the upper fragment and act as an extending splint, but it came nearer performing the same valuable service for me, for while doing so, under the guidance of the left forefinger, the forceps slipped off and cut it slightly, not more than two lines, but seemed to bruise it very much. It hurt me much, and I immediately put it in warm water and squeezed it, causing it to bleed freely.

I redressed the limb lightly as before, and thought but little of my autoplasty until near night, when it began to feel very tender, which gradually increased to a deep painful throb confined to the end of the finger. The pain continued through the night, so that I rested but little, keeping my finger in a basin of ice water most of the time, though I was slow to believe that it was more than the bruise of the forceps that was causing the trouble.

An examination in the morning dissipated any doubts I might have had of its character, and I was placed in front of that danger which always seemed a myth, from its far nearness. Eight years in the presence of a danger does much to dissipate the dread of it, and induces the carelessness likely to produce it. My finger was swollen, tense, red, throbbing, the pain extending to the elbow and shoulder, with two red lines of lymphatics passing from the back of the hand to the elbow, and a blush on the back of the hand at the point of beginning of the inflamed lymphatics. I felt a sense of languor similar to that preceding an attack of ague, with the attendant aching of my limbs and indisposition to exertion.

At 10 o'clock, I cauterized the finger thoroughly, and Dr. Lynn split entirely to the bone the length of the last phalanx through the wound. It bled probably a drachm or two, after which it felt somewhat relieved, and wrapping it in a linen roller, I attended to my business during the forenoon. Getting home at one o'clock, and my hand in a perfect rampage of pain, as I entered the house was taken with a violent chill, which shook me *entirely*, until I thought I should disjoint without the benefit of the clergy. This did not continue more than fifteen minutes, and was followed in about an hour by fever my pulse rising to about 120, which with alternate cold flashes continued the afternoon.

When I was taken with the chill I took a very free dose of brandy, and repeated the dose in half an hour. If any one is curious to know the amount I must refer them to my kind and frightened landlady, who dealt it with no spar-

ing hand. As I came from my office at 3 o'clock, I ordered a quart bottle of Buck & Rayner's best, and began on it immediately, and continued it at *uncertain* short intervals during the afternoon. Shortly after 6 o'clock I broke into a profuse perspiration, which lasted but a few minutes. After this, my fever seemed to rise higher. ℞. Cont. Brandy, Pro re nata, and more too. At bed time, Blue Mass, grs. X. At midnight, I began to perspire freely, which continued through the night. Next morning found me free of fever, my finger comparatively comfortable; did not examine the wound.

℞. Cont. Brandy, slightly increasing the dose, from the encouraging effects thus far. Took a bottle of Citrate of Magnesia which operated freely.

No increase of fever during the day.

Night found my medicine exhausted as well as the fever, both going down together. In the evening my finger pained me some, which by 2 o'clock A. M. became so unbearable that I opened it to find the wound suppurating slightly, and erysipelas extending the length of the finger, swelled to the back of the hand.

Cauterized it with solid Nitrate of Silver, and applied bread and milk poultice to the wound, and it becoming easy, I slept well, except when I roused myself to sustain my flagging powers with a toast to the inventor of agreeable medicines.

Morning found me with another empty bottle, this time only Oj., and my finger seemingly free from further anxiety, the erysipelas ceasing to spread and pain almost having disappeared. This day, Saturday, I went to my office, though feeling very weak. After this there is nothing in the history of the case of any interest, if there is any before.

Erysipelas, followed by gangrene, set up in my patient's arm and he died the fifth day.

Aside from the *personal* interest I have had in the case, there seems to me an interesting inquiry arises, which I have no hope of settling, although that does not serve to keep it

down. Why should I escape so many similar exposures to be overtaken this time? Leaving out the theological view, which I firmly believe, "Whatsoever comes to pass," &c., there is much mystery about the *matter* of infection. Many times, so far as extreme appearances could go for any thing, I must have been exposed to all the reputed causes of this uniformly fatal accident.

Often I have cut my fingers in dissecting, an accident occurring every day almost, and on almost all kinds of subjects, and never had the slightest symptom of any thing of the kind before. Generally, the caustic was applied, but if the ideas of some of our latest authorities go for much this is of uncertain avail, for they maintain that once the infectious material within reach of the absorbents no power can rescue the contamination. In vaccination, it is maintained, that when once applied, though scarified, cupped and washed with chlorinated water, the disease was not interfered with in the slightest. Glanders has been introduced into the system in the same way, though followed by excision of the part and the actual cautery. Very often this was not done, and every thing was left to its natural course with perfect impunity. This was not so alone with the cadaver, but also on living subjects.

While on the hospital boat from Pittsburg Landing, I recollect *knocking* the skin off my fingers in opening some boxes and afterwards using them probing erysipelatous wounds and handling cases of hospital gangrene, without having the slightest inconvenience from it.

Wherein does the predisposition exist? Is it in the poisoner, or poisoned. It seems to me in the latter, from the facts I have just stated. The condition of the system at the time it is exposed to the infection determines its reception or rejection; not its absolute acceptance or rejection, but its deleterious effect. In certain conditions of the blood and organs, any deleterious agents received within due limits may be eliminated, while in others, either from the blood proving a suitable and comfortable nidus, or from the organs whose business it is to throw

off being imperfect in practice, it is retained, and all the consequences entailed. And here exists one of the great predispositions to disease, the condition of the blood and eliminating organs.

One case of confinement does well, or all cases do well in one season, and in another with no outward difference in the cases many are affected with fever and none do so well as formerly. In one season the system, with its usual energy, purifies itself and speedily regains its accustomed vigor, and in another, from the blood being contaminated or contaminatable, the resolvent actions are impeded, putrid or stagnant blood received into the circulation, is sufficient to light up the fires of fever. In one season or case a given injury readily rights itself with no serious symptoms, while in another gangrene or erysipelas complicates or destroys.

In scarcely one out of ten cases of Gonorrhœa treated, is the patient made acquainted with the danger of contact of the infectious matter with the conjunctiva, and he handles organs and eyes with indiscriminate ignorant freedom and yet how rare is purulent opthalmia?

I think that those blood diseases will be found to prevail during epidemics of erysipelas and childbed fever, and to this fact, and not contagion, are these epidemics to be attributed, that it is a coincidence and not a cause.

In one season the diseases of children, as scarlet fever, measles, &c., are comparatively light, scarcely sufficient to keep the patient indoors; while during the present winter very many died, and that too under the most skillful treatment. I have noticed the present year, as a collateral fact, that the cases I have vaccinated have been unusually successful in taking, their arms excessively sore—in many cases, though I always used the purest matter, an eruption, pustular in character, would break out on the arm—the surface around it remain livid and the arm not heal for four or six weeks. These facts evidence to my mind that there are times when, from the altered relations of the elements, some additional elements, or

the changed eliminative power of the excretory organs, the blood receives injurious impressions with more facility.

A person may be exposed for years to the same exciting causes of disease with entire immunity, until the two poles meet with the necessary conditions for an explosion. I know I am stepping aside from the usual idea in relation to this subject, it always being accounted as depending on the character of the infecting matter rather than condition of the individual receiving it. Certain diseases, as Puerperal and Erysipelatous, being those regarded as most dangerous, the fact of their prevalence is, I believe, evidence of the epidemic influence causing depraved condition of the blood. Or were they not prevailing it would weigh nothing against the circumstances of an individual case being such as to cause the necessary depravation of the blood, as from exposure, bad food, or great mental and bodily fatigue.

The treatment suggested itself to me as that most successful in other forms of animal poisoning, and as so little was to be expected of those usually adopted there seemed but little risk in trying it, with the additional advantage of being a pleasant medicine and a great comfort to the suffering. I gave it a very free trial, having taken three pints of the best brandy in thirty-six hours, which for one not a politician may be considered fair drinking. The test of its efficacy in this disease is said to be its want of effect on the mind. The only circumstance from which I could judge was getting well, though I noticed occasionally a disposition to converse freely, but I took the precaution not to apply the test of locomotion. I feel much confidence from my experience in the remedy, and should use it again with great hopes under similar circumstances, the very best test of its power being to me that I am able to subscribe myself R**.

P. S.—Since writing the above, Dr. Chas Fishback, of Indianapolis, has lost his life by this accident. He was making a *post mortem* when he pricked his finger slightly with a needle, the disease set in, destroying his life. I have seen nothing but a newspaper notice of the case and, therefore, know nothing of its treatment or duration.

SELECTED.

CLINICAL LECTURE ON THE TREATMENT OF ACUTE RHEUMATISM,

DELIVERED AT ST. MARY'S HOSPITAL, LONDON.

By THOS. K. CHAMBERS, M.D.

Gentlemen—Rheumatic Fever is a pleasant disease—I mean for the doctor to treat, though not for the patient to bear. It is pleasant for him to treat it, because he then feels himself strong and useful. In the first place, he can by the judicious exercise of his art, insure the sufferers against several perils to which the nature of their complaint normally subjects them. Again, he can save them much pain. Thirdly, he can shorten the normal duration both of the illness and of the convalescence. Truly, in most diseases he can effect one or the other of these objects, but in none, I think, so many of them, so surely or so simply as in rheumatic fever.

Rheumatic fever is also a pleasant disease to lecture about. It presents a simple uniform type, so that the short descriptions you have had in the systematic course on the Practice of Medicine are found really applicable at the bedside, without the necessity of guarding them with all sorts of exceptions and variations, which clinical teachers are so often obliged to resort to in other cases. And a very simple uniform treatment may be recommended, which hardly ever (if ever) requires modification. So that if your authority with your patient is sufficient, and you are certain of your diagnosis, you never need to call in the assistance of a physician.

You see taken in the wards almost weekly specimens of the mode of treatment I adopt. My present business is to tell you the reasons for it.

1. The patients are bedded in a peculiar fashion. All linen is strictly forbidden to touch the skin. A slight calico shirt or shift may be allowed; but if they possess under clothing only of the prohibited sort, they are better naked. Sheets are removed, and the body carefully wrapped in blankets, which are so arranged as to shut off all accidental draughts

from the head. The newest and fluffiests blankets that can be got are used. The bedclothes being put so are kept so, and students are warned that, when they listen to the sound of the heart, they must not throw open the blankets, but insert their stethoscope (first warmed) between the folds.

2. These joints or limbs which are swollen, red, or painful, are wrapped up in flannels soaked with a hot fomentation consisting of decoction of poppy heads, with half an ounce of carbonate of soda to each pint.

3. The following drugs are prescribed with a curative intention:

(*a*) If the skin is red, swollen, and painful, about the joints —if the cellular tissue around the muscles is infiltrated and sensitive, so that motion is impossible or exquisitely painful— more especially if these phenomena are metastatic, leaving one part free and attacking another,—then they get the alkaline treatment pure and simple; they have a scruple of bicarbonate of potash in camphor water every other hour night and day when awake.

(*b*) If the above named phenomena are insignificant, and the pain is felt more in the bones—if it is intensified rather by pressure than by motion—if it is fixed in one spot and not metastatic,—then I add two grains of iodide of potassium to each dose; and directly the symptoms have taken a turn towards alleviation, I leave off the alkali altogether, and gave only the iodide.

4. Opium, as a palliative, is given in exact proportion to the degree of subjective sensation of pain. If one grain be not enough to entice sleep, a grain and a half is administered; if that do not avail, two grains. Directly the pain is better, the quantity of the drug is diminished. Nothing effects the desired object so much as pure opium.

5. If the pain remains fixed in one point, instead of leaving it like in other places, leeches are applied there, and the part is kept poulticed. When we can get them, young laurel leaves, bruised, are mixed with the poultice.

6. The latter statement is applied also to the cardiac region, if the heart has become inflamed either inside or out. The pain is taken as an indication of the extent to which the leeching is to be pushed, so soon as it is proved by auscultation that such pain arises from inflammation of the heart, and not from rheumatism of the pectoral muscles. The constant application of the poultice is made imperative.

7. The diet is varied in some degree according to the ante-

cedent circumstances of the patients. If they have been robust healthy persons before the attack they will bear a good deal of starvation, and they are put on our "simple diet"—to wit, bread and butter, gruel, and tea, in quantities practically at discretion. If previously they have been ill nourished, by reason of either ill health or poverty, a pint of broth or beef-tea is added.

I will now proceed to comment on the several items of treatment.

1. It is impossible to exaggerate the importance of extreme repose and an even high temperature to the skin in rheumatic fever. It is worth all the other means of relief put together. Since I have instructed my nurses to adopt it in every instance during the last eight or nine years, I have had pericarditis come on in only one patient previously sound, and that was a girl who was taking mercury and opium, and I suspect had exposed her chest a good deal to the air.

The *rationale* of this is very simple. Rheumatic inflammation is an injury to nutrition which is entirely compensated for the restored function. It passes away and leaves no after-sign, no wound, no scar. This is what happens if the part affected is kept perfectly still. But should duties be required of it, which it is unequal to perform in its imperfect condition—should necessity or ignorance lead the patient to keep moving a swollen joint, for example—then common inflammation is superadded. Then the pain and swelling become fixed, and no metastasis can take place. You see this frequently in the poor working people, who, through ignorance of consequences, strive to go on with their employment to the latest minute. Laborers come into the hospital with the disorder fixed in their knees, carpenters in their elbows, laundresses in their wrists; so that you may make a shrewd guess at their trade from the part where the disorganizing inflammation is situated. Pain may be called by excellence *the* proof of beneficent design in God's laws as shown in disease as a warning to abstain from that which excites it. The pain of rheumatism is a call to voluntary absolute rest. Now in the joints this is easily obtained, and under any treatment you never see a joint become affected with disorganizing inflammation after a patient has once taken to his bed. But there is one organ whose business admits of no repose; the heart *must* keep beating, at whatever cost; and the heart accordingly is well known to be fatally apt to be struck with common fibrinous inflammation at all stages of the disease. Taking a lesson from what I

have noticed in the joints, I try and assist the heart to gain, not, of course, the Utopia of absolute rest, but the nearest approach that is possible.

Perhaps you may think that object would be attained by simply confinement in bed and the horizontal posture. But it is not so. Next to jumping and running there is nothing gives the heart more work to do as change of temperature. Let the physiologist observe the healthy organ, and the physician examine it in a state of disease, and they will find that the addition or subtraction of heat to the surface of the body is accompanied by a longer and stronger stroke as felt by the finger, by a longer and stronger sound as heard by the ear in the cardiac region. What is technically called "the interval" is shortened; and thus is encroached upon the only wink of sleep the industrious muscle ever indulges in. What does the accoucheur do who wishes to apply the strongest vivifier to the dormant circulation of a still-born baby? He dashes cold water and cold air on the skin; he rubs the chest dry, and applies hot cloths; again he dashes it with cold, making as many changes of temperature as he can. What the accoucheur is so anxious to accomplish, we are most anxious to avoid; and I feel sure that it is the consequence of guarding patients with rheumatic fever from the influence which variations have over the dependencies of the pneumogastric nerve that the treatment now advised is so successful. I never have pericarditis come on when it is once fairly begun.

I scarcely need to say that the most important part as respects the attainment of the accoucheur's object and our opposite object is the chest and neck. He applies his stimulus especially there, and there we must as carefully watch against it. As a student I used to see many and many a case of pericarditis brought on by the careless way in which the chest was exposed in the daily stethoscopic examination. It is necessary, of course, to listen to the heart thus frequently, in order to convince yourselves of the absence of morbid sounds under the plan I am advising; but by warming the stethoscope in your pocket or under your axilla, and making the blanket into a tube by which to insert it, you put the patient to a minimum degree of danger.

You saw a fortnight ago an instance of the danger of the exposure I have been deprecating. Margaret K———, aged twenty-three, was admitted March 28th, for rheumatic fever in the arms and legs; from this she recovered perfectly without any affection of the heart, and was transferred to the Convalescent Ward.

On April 17th she had a relapse, principally affecting the legs, and on the 19th I found her in bed again. By an oversight she had not been blanketed, and when I felt the cold sheets damp with the patient's perspiration, I was not surprised that she complained of constriction across the chest. You heard me rebuke the nurse in no measured terms, and prognosticate evil. With justice; for before two days were over, there was a melancholy systolic murmur distinctly audible. I trust this case has been a warning to you.

2. By comparing occasional cases one limb wrapped in fomentations of simple hot water with another where decoction of poppy heads were used, I come to the conclusion that either the viscid vegetable matter or the small quantity of opium in the poppy heads contributed towards alleviating the pain a little. And a similar experiment has led me to the same opinion as respects an alkaline carbonate.

3. With unimportant exceptions I have treated every patient on the alkaline plan for the last seven years, being convinced of its power to shorten and alleviate the disease by the statistical deductions of Dr. Garrod. In a great majority of the cases very rapid relief begins with the commencement of the treatment, and continues permanent. But in a certain number no effect appears to be produced, sometimes even after the urine had been made alkaline. In a few of these there is apparently committed a pardonable error of diagnosis, and the patient is gouty. In a few also we are deceived by gonorrhœal rheumatism—a disease allied to pyæmia, and requiring quite different management. Still there are a certain number of instances where true rheumatic inflammation is very obstinate, and does not yield to the alkaline method. And in these you will find the periosteum and perichondium affected. When, then, after five or six days the patient is better, or but little better, I add as I told you, iodide of potassium to the potash, and in a few days more continue it alone during the convalescence. And, of course, if I am enambled to make this condition of periosteum out of the first visit, I begin such treatment straightway.

I mentioned just now that I had in a few instances, for exceptional reasons, not given the alkaline treatment for rheumatic fever. Amongst these are included a middle-aged laborer and his wife, both attacked together, and just recovered, in which cases you saw no drugs given during the acute stage. The object of this omission was partly to disabuse my own mind of a suspicion that the alkalies might cause, or augment

the anæmia and weakness so general in the convalescence of rheumatic fever; or, perhaps, might give rise to relapses by interrupting the course of the disease. You saw that the loss of flesh and strength was in these two cases as great as usual, if not greater than in the majority of the examples exhibited to you in the wards, satisfying us that it is the disease, not the remedy, which is to blame for it. You saw, also, that one of the patients (the man) had a relapse, showing that to nature, and not to art, is to be attributed this unfortunate occurrence so frequent in rheumatic cases.

Partly, also, I omitted drugs to remind you that you do not carry in your medicine chests absolute powers—that rheumatic fever is a state in which the forces of life move in a circle, in a road which leads of itself back towards health—not a chronic disorganizing process, whose path may be described as a straight line, approaching nearer and nearer to death the farther it goes. It ends of its own accord, or at all events without the aid of drugs, often in a few days, often (as you saw here) in a time quite as short as could have been expected had medicine been administered. This consideration is needful to enable you to estimate properly the value of numerical arguments and to understand that a very large collection of cases, much larger than your experience probably will ever supply to you, is required to prove the ability of a drug to shorten rheumatic fever. If you forget this, you risk being misled by a fallacy, at an instance of which, applied to this very disease, I was amused a few years ago. I had an interview with an irregular practitioner, (very irregular indeed,) who told me that he gave no medicines, but followed "the method of St. James;" he "anointed with oil those that were sick, and the Lord raised them up." As evidence of the success of his plan, he gave me the history of two attacks he had experienced of rheumatic fever. In the first he was treated *secundem artem*, and was laid up for more than three weeks; in the second, he obeyed the perversion of Scripture above quoted, and was out of bed in five days. Of course he was perfectly impervious to argument.

Do not misunderstand my words, as if I intended to be sceptical of the proof adduced by Dr. Garrod of the success of the alkaline treatment in shortening the average duration of our patient's pains. I think he fairly proves his point by the numerical method. But besides that, the use of such drugs is quite in harmony with the principles of restorative medicine. The deficiency of the alkali in the body is shown

in all quarters by the appearance of free acids. In indubitable cases left without treatment, the sweat is acid; the saliva is acid; the urine, instead of being normally acid, is intensely acid; the breath even smells acid. The blood, indeed, remains alkaline, fortunately for the life of the patient; but that is only done at the expense of becoming exceedingly watery, and inducing the anæmia which is so characteristic of the convalescence of rheumatic fever. If the blood is aqueous, and contains less solids than normal at the same time that the salts bear their usual proportion to the rest of the solids, it is obvious that there must be a great deficiency of these salts in the body. Though the blood therefore be not acid, it is easy to understand that it carries less alkali than it ought to do.

A real deficiency, then, is attempted to be restored by the alkaline treatment. And when we think what a great mass of living matter it is over the whole of which this blatant deficiency exists, then is explained the necessity found for large and repeated doses, which all good observers insist upon. To give a few grains three times a day is merely playing at healing, and cannot be reckoned as treatment at all. I do not think anything less than half an ounce in the twenty-four hours of the bicarbonate of potash is of use. If this runs off straight by the kidneys, making the urine alkaline too rapidly, it is of little avail; but if it mixes with the mass of the corporeal fluids, and is some time before it affects the reaction of the renal secretion, the advantage is sensibly appreciated by both the patient and his attendants.

The employment of iodide of potassium is purely empirical. By none can the fact be explained that this remarkable substance restores their normal functions to several tissues—most notably to those sparingly supplied with bloodvessels, such as cartilaginous and white, hard, fibrous parts, the periosteum, the sheaths of tendons and of nerves, the hair, the nails, and the outer layers of skin. On these grounds it is employed when rheumatism and even when gout attacks the tendinous and internal tegumentary parts of the joints and limbs. And I think one cannot doubt the assurances of the sufferers that they feel better for it, however inexplicable the fact may be.

4. Opium is administered purely as anæsthetic. There is no reason to think it either shortens or lengthens the duration of the disease. Curiously enough, it does not usually produce constipation so long as the painful condition which it is given to alleviate remains. Should, however, that result follow, the inconvenience is easily obviated by adding two or three grains of good extract of colocynth to the opium pill.

5. The treatment by leeches and poultices of the common inflammation which has supervened on the rheumatic in joints over-exerted during their weak state, has nothing special about it. It will usually prevent disorganization, because in point of fact the inflammation is very slight and diffused.

I have told you inflammation of the heart does not come on in patients who have once been placed and kept under the treatment detailed to you; but in a good many the exposure they have been subject to previously, and sometimes, perhaps, the necessary time spent in the waiting-room before admission, gives you, unfortunately, the opportunity of seeing this complication treated. I feel satisfied that it need make no difference in the applicability of the alkaline method; indeed, it rather determines me to insist on its being fully carried out; it determines me also to be more than usually careful about the maintenance of temperature by blankets, and to direct this attention to the chest in special by the retention of continuous poultices on the cardiac region. From six to twelve leeches are applied immediately. These usually relieve the pain somewhat; but if it returns again next day, they are freely repeated again and again. The pain is the best indication of the acuteness of inflammation in serous membranes, and as long as acute inflammation lasts, leeches and poultices are the best remedies for it. To mercury I have never been able to trace any advantage at this stage; indeed, I am not sure that it does not dispose to pericarditis by increasing the proportion of fibrin to the other constituents of the blood. Perhaps after effusion has taken place it may be useful; but I am not quite satisfied that it is desirable in all cases even then. Opium may be given in full doses, and far from being contra-indicated in cardiac inflammation, is all the more urgently demanded; for it certainly does control and lower the hurry of circulation, which is so dangerous. Under its use the pulse is diminished in frequency, sometimes even below the normal standard; and this must surely be an important object in a state induced by the continuous motion of the organ.

The treatment of pericarditis admits of no delay. Lost minutes are more hurtful here than in any disease I know of. Send for leeches, and have them applied immediately, our suspicions are aroused by an abnormal murmur; and if they are not at hand, cup the cardiac region. It is better even to anticipate evil than to be too late. On this principle you saw me a fortnight ago leech and poultice the heart of the young woman before mentioned (case of Margaret K———), where

you could detect no friction in the pericardium, and you wondered at my "sharp practice;" but the fact is, it was a case of relapse during convalescence, and as the patient was in the convalescent ward, the nurse negligently omitted to put her in blankets; the cold, damp linen was beginning to do its work, and the lengthening heavy systole of the left ventricle, accompanied by a sense of constriction, and pain on pressure, warned me to try and prevent the threatened inflammation. I was only partially successful; for the anticipated evil did come as predicted, and in two days' time an exo-cardial murmur was distinct enough, though I am convinced it was in a much milder form than would have happened without the leeches.

7. In rheumatic fever there is a painful necessity for restricting the supply of nutriment. If animal food be given, it appears to turn into lactic acid, or at all events to increase the quantity of animal acid in the body. Even when the pains are gone, and there is such an urgent necessity for replacing the lost flesh, animal food will sometimes bring on a relapse. Hence in rheumatic fever, alone, perhaps, of all diseases, I give the patient less food than their inclinations dispose them to take. Meat especially seems to disagree, and you must very cautiously get back to "ordinary diet" after rheumatic fever, or you run the risk of losing more by a second attack of the disease than is gained by haste. Vegetable food does not throw them into the same danger, and thus by dint of rice pudding, porridge, gruel, bread, mashed potatoes, and so on, you can generally succeed in stopping the mouths which are often so loudly complaining of starvation. If you cannot succeed in staying the appetite by this persuasion, I fear it is your duty to be cruel, for observation will soon convince you of the dangerous effects of animal food.—*London Lancet.*

INSANITY AND INTEMPERANCE.

By ANDREW McFARLAND, M. D.

Among the problems of psychological science which remain to be solved, is, such a discrimination between the manifestations of mental disease and some of the effects of the hab-

itual use of diffusible stimulants as will render reasonably clear the administration of justice in criminal courts. It is not merely with the broad resemblances between insanity and drunkenness that we have to deal, in some of the cases which occur; not the question how far a fit of intoxication renders the individual irresponsible for what he does; but we sometimes have the two states conjoined in the same individual, each with its liabilities and immunities, making a skein of commingled guilt and irresponsibility, which science must disentangle. We must sometimes throw so much light on the tissue of testimony held up before us, that amidst all its intertwisting, what is the indelible coloring of disease, and what the transient stain of a vicious habit, shall at once appear. The task is a difficult one, requiring a nice analysis of their differences, and such a bold separation of them that justice may plainly see where to strike.

In two instances, within the last year, the subject of insanity in connection with the excessive use of stimulants, has presented itself in the courts of Illinois, where the two conditions could be viewed in their relation to each other.

The first case, *Keenan vs. Van Horn*, had little of interest, except for the decision rendered, which goes somewhat to open an enlightened procedure in such cases. In this case, suit was brought by the complainant, Margaret Keenan, to recover possession of certain property conveyed by her husband during his life to Van Horn, while incapable of so doing, by reason of mental disease.

The deceased was long in the habitual and excessive use of ardent spirits, resulting finally, as was claimed, in permanent mental disease. The testimony, which was very voluminous, proved that for fifteen or twenty years, he had been a common drunkard, that his propensity for such indulgence grew more inveterate, terminating at last in his death from dropsy and general decline. Toward the last of his life he had abandoned his family and taken up his residence with Van Horn, to whom he conveyed his homestead and other effects without adequate consideration.

The allegation of his incompetency rested chiefly on certain distinct and strongly marked peculiarities, which always attended him when under the influence of liquor. At such time he fancied himself a military commander, styling himself "Capt. Rock," and would spend many successive days and nights in giving the word of command to imaginary companies of soldiers, whom he extemporized out of sticks of

wood, stumps of trees, &c., and that his fits always took that form and no other. At such times it also appeared that he had no adequate idea of the value of money, but spent it lavishly in buying articles for which he had no use, or which he gave away to persons in whom he had no interest. Testimony as to his condition during the intervals between his fits of drinking was somewhat conflicting, though the weight of it seemed to be that, with the exception of his faculties being somewhat blunted, there was nothing very different in him from other men.

In this case it was held that the unvarying recurrence of the mind of the deceased to certain fixed and unchanging delusions, was evidence, notwithstanding the occasion of such delusions may have been induced by indulgence in liquor, that there was radical mental impairment, that there was a difference in his peculiarities from the ordinary phenomena of the drunken fit, the aberrations of the latter being more general or diffuse, and not commonly attended with such special delusions as was shown always to exist in this case. The liquor was claimed to act in this instance upon certain always present, though latent, diseased mental traits—something like the effect of a varnish upon the grain of a wood—bringing into view what was before invisible, though none the less present.

Judgment was rendered for the plaintiff in this case, from which an appeal was made to the Supreme Court, which, however, sustained the decision.

It must not be understood that those general but always appearing traits which some persons exhibit when inebriated, are included in this view. Some men, for instance, are always dignified, some quarrelsome, and some amorous when in their cups, and some indeed, like Mr. Snevellicci, pass through all those stages in the course of a single bout. A difference will be recognized between this exhibition of some general trait, and that taking up of a special idea, which was held, in this instance, to be indicative of fundamental impairment of the intellect.

This case is cited rather by way of introduction to another of much greater importance, in which this distinction is more clear, and becomes more necessary.

William Hopp was tried for the murder of his wife before the Circuit Court of Cook county, in December last, Judge Manierre presiding. The trial was protracted, excited deep interest, and has points well worthy professional attention.

Hopp is an Englishman, who came to this country with a

younger brother, and settled near the head of Lake Champlain, in Vermont, perhaps thirty years since. Testimony of importance, in regard to the insanity of his mother and his aunt, was ruled out of the proceedings, as technically inadmissable. After residing some time in Vermont, both brothers moved to Illinois, and settled some twenty miles from Chicago. It was proved by the prosecution, by way of derogation of the character of Hopp, that while living in Vermont, he was engaged in smuggling goods across the Canada border. But all testimony in regard to him, since residing in Illinois, showed him strictly upright in every business transaction, and somewhat punctilious in matters of honor and veracity. By great industry and thrift, he acquired a handsome property, and was living, at the time of the homicide, in a style much above the average of his neighbors. It may be mentioned that Hopp had always used ardent spirits freely, though not regarded as an intemperate man. Some years after coming into the State, the younger brother became incontestably insane, and still remains so, though residing with and cared for by his brother.

Twelve years ago William Hopp, while repairing a bridge, was exposed for several days in succession to a thorough wetting, and an obstinate dumb ague was the consequence. At this distance of time it is impossible to get at the exact state of his mind during this illness. But it appears that, while still suffering under its effects, he had a trifling difficulty with one of his neighbors, whose horse had died while in his (Hopp's) hands, though in no way made diseased by any labor or ill usage. After some dispute an arbitration followed, in which it was decided that Hopp should pay half the value of the animal. He appeared unusually disturbed by this transaction; his mind seemed to dwell upon it to the exclusion of almost everything else. He fancied it not less an act of injustice than an imputation upon his personal honor. What increased his vexation was an idea that his wife was indifferent to his interests in the transaction; and this impression finally changed into a conviction that she was in complicity with the arbiters who had made the decision.

From this period commenced a course of personal abuse, occuring in paroxysms, in which he charged her with unchaste conduct, at first with these particular parties, and at length with a prostitution almost indiscriminate. It may be mentioned that no woman could exist in whom such accusations could be more unfounded. These periods of abuse were

strictly periodical, leaving him, during the interval, affectionate and considerate as other men. But they increased in frequency and length, sometimes continued with hardly any cessation for two or three successive days and nights. This abuse commenced at first in the form of remonstrances against her unchaste conduct. Then it took the form of most profane and obscene epithets, coupled at last with extreme personal violence. He never applied any epithet to her except such as denoted unchastity. In the presence of others, during all the early part of this period of ten years, he treated her with due consideration. Only his children were witnesses to it, by overhearing him after he and his wife had retired. But at last the presence of his children, and finally of strangers, made little difference. These paroxysms were attended by the consumption of large quantities of liquor, and the degree of his abuse of his wife was measured, in the estimation of his neighbors and children, solely by the depth of his potations. Sometimes, exhausted by this protracted persecution, she would leave him, threatening not to return. No sooner would she be out of his sight than he seemed a changed man. He would abstain wholly from drink, become penitent and full of self-reproaches, write beseeching letters imploring her return, and even take oaths before a magistrate to abstain forever from liquor, upon which he charged all his conduct. But as soon as she comes again in his sight, the same abuse is renewed, even before they had reached the house from the cars in which she returned. During these years, all the testimony showed that as a father and neighbor he was exemplary. He was a man reserved in the extreme in imparting his confidences, and never, except in occasional obscure hints, disclosed his impressions regarding his wife's unchastity. He clearly did so, but in rare instances, and only to those in whom he had most implicit confidence.

His wife seemed the only person who had any idea of the true cause of his singular conduct. That she had such idea, appears from her frequently advising him to take calomel and other medicine.

In the month of June, 1862, he returned in the evening from a neighboring village intoxicated, but not so much so as on many former occasions. He commenced his abuse in the usual terms, to which she made little reply, when, as she was seeking to evade him, he struck her, while passing, with a knife, which inflicted a wound in the abdomen, of which she died about twelve hours afterwards. On the assembling of

the neighbors, Hopp appeared perfectly calm and unconcerned. He calls them to witness his present sobriety, tells them the act was a deliberate one, and contemplated for the past ten years.

Just previous to his trial, the writer of this article visited him in the jail, the prisoner having no idea whatever of the person, or of the object of the visit. The prisoner is about fifty-eight years of age, rather above the common height, and of fair intelligence for one of his class. His honesty and sincerity are unquestionable, and his statements in regard to the tragedy and the ideas antecedent to it, bear the stamp of perfect ingenuousness. He went into a lengthened narrative of his troubles, commencing with the arbitration in reference to the horse. The proofs of his wife's infidelity, which he circumstantially narrates, are the merest "stuff of which dreams are made." As evidences of the trifles on which the insane base their delusions they possess a certain degree of interest.

On one occasion, for illustration, when a son was born to Hopp, certain acquaintances, and among them one of the arbiters in the horse case, assembled in honor of the event. A toast was drunk complimentary of Hopp, especially in relation to his ability to beget children. This he regarded as clear proof that the proposer of the toast thereby acknowledged the gilt of which Hopp had previously suspected him. A remark made afterward by the same individual, that "women were good creatures," was conceived to have the same import. As was before remarked, his conviction of his wife's infidelity so widened during the last of her life, as to include most persons who even approached his dwelling. An individual who had called to purchase some onions, in Hopp's absence, was regarded by him as the father of one of his children, and, on calling at the house some months afterwards, the child was brought out by Hopp and introduced, by way of test, as ".the little onion boy." In narrating the circumstances of this introduction, Hopp concludes with the remark that if the individual thus accused had "spoke volumes of confession, it would not have been equal to the look of guilt which that introduction created."

No one at all acquainted with the manifestations of mental disease will fail to recognize a state of mind of which such ideas as the above form a texture, as insanity of the most unequivocal type. Yet, never was prisoner arraigned at the bar more completely shorn of every vestige of sympathy, or who stood so entirely alone in his extremity. Fully justify-

ing himself in what he had done, he seemed to conceive that all he had to do was to make statements, of which the narration is a specimen, to convince all others of his innocence. He had no idea, before the trial, of the plea which was to be set up for him. No testimony against him was so unrelenting as that of his adult daughters, who urged the prosecution with a vindictiveness as great as if the blood in their veins was drawn from the most opposite sources.

An attempt was made by the expert testimony, to show that the violent conduct of Hopp for the ten years before the homicide was purely the result of a delusion; that, dating from about the time of the arbitration, he was an insane man; that his insanity was evidently hereditary, though induced by the illness of which mention has been made; that his delusion having assumed the form it did, was merely accidental, and that it was no more strange in him to have accused an innocent woman of promiscuous intercourse with chance-comers to the house, than are the innumerable other forms which the mysterious disease of insanity perpetually puts on. The cool-blooded atrocity of the act of homicide, and the indifference and self-justification of its perpetrator were shown to be strictly in accordance with the nature of mental disease, as it existed in the prisoner; that, believing her continuance in guilt was more to be deplored than her death, he had become her executioner, and, by the perverted operation of his reasoning powers, he expected justification for the act he was committing.

It was urged that the habit of drinking was not the sole cause of the homicide, as contended for by the prosecution, but a mere incident, having, quite likely, little or nothing to do with the disease; that, had his conduct proceeded from indulgence in liquor alone, he would have shown quarrelsome and violent dispositions toward others as well as his unoffending wife; that the special terms which he invariably used toward her were significant of the singleness of the idea under which he existed; that, had the fatal blow been struck as the mere impulse of a drunken fit, the consequences of what he had done would have so shocked him as to have driven the fumes of liquor from his brain at once, and produced a paroxysm of remorse, while his whole demeanor, from that time till the inquest, was that of indifference and self-justification.

It was further shown that the change which took place in the mind of the prisoner when his wife was absent, was one

of the ordinary phenomena present in all cases of delusion, and in accordance with the law of mental disease; that where a delusion appends to another person, it disappears for the time being when the person is out of sight, and the fact of delusion is proved by the disappearance of the idea with the disappearance of the person to whom it relates. The clearly defined beginning of his altered conduct towards his wife, is also cited as one of the proofs that his conduct was the result of disease, and not of intemperate indulgence. It does not appear in any testimony, that his treatment of his wife was unkind, till the time of the arbitration before alluded to; and yet he was decidedly intemperate many years before that transaction.

Much stress was laid, in the prosecution, upon the oft-repeated declaration, "that he never abused his wife except when he was in liquor." This may all be true, and yet, if accepted as a bald statement, allows a fatal prejudice to enter into the case. It needs no wide experience to show how commonly the approach of a fit of paroxysmal insanity is signalled by an inordinate thirst for artificial stimulants, and how certainly the subject of that form of disease will avail himself of them if within his reach. William Hopp, with ample means, was always prepared thus to feed a natural excitement with an artificial one, and that he always did so, is merely proof that the coming on of the paroxysm was invariably attended with certain irresistible cravings. So far from it being a fact, that the homicide was merely the result of this indulgence, the theory is by no means untenable that the habit of drinking actually postponed the fatal tragedy, upon the well-known principle in mental philosophy, that the purposes of the will are dissipated and made ineffective under the diffusive tendencies of alcoholic stimulants. In all human probability in this instance, the fixed purpose of the lunatic was sometimes lost sight of in the windy brawl of the drunkard.

The charge of Judge Manierre is worthy of being quoted at considerable length. Viewed in the light of an attempt to make a difficult subject understood by a jury of plain men, it is certainly a success. Though there are many ideas in it at which exception would be taken, it has certainly the merit of great lucidity, and stands in striking contrast with the "muddle" uttered from the bench in the case of Real, quoted in the last Journal of Insanity. It may be remarked, that some of the former expositions of the law of insanity promulgated by

Judge Manierre, especially in the Green case, tried in Chicago some eight years ago, entitle his views to high consideration, and will be regarded, even by those who differ in some of them, with sincere respect. It should be explained that during the trial, the usual passage-at-arms took place between the counsel for the prosecution and a witness expert, on the subject of *moral insanity*—wholly foreign to the points of the case, and intended for mere effect. The somewhat lengthened discussion of this subject may have led the Court to the frequent allusions to it, which appear in the remarks from the bench:

REMARKS IN GENERAL.

"A crime," says Judge Manierre, "is defined as a violation of a public law, in the commission of which there shall be an union of act and intention. Intention is manifested by the circumstances surrounding the act, indicating its motive or object, and the sound mind and discretion of the accused. A person shall be considered of sound mind who is neither an idiot nor lunatic, nor affected with insanity, who has a knowledge and consciousness of the distinction between good and evil. In this case, the homicide is admitted, but the accused alleges that at the time of the commission of the act his mind was so affected with insanity that his moral sense and will were subjected by it, and he was oblivious to the moral quality of the act. The law presumes the sanity of every person charged with a criminal act, and that such act is the result of volition influenced by motives acting upon the mind. Hence the burden of overcoming this presumption rests upon the accused; but when insanity is satisfactorily shown, it is the duty of the jury to acquit, as in such case there is an absence of intention which is essential to a criminal act.

"Insanity is generally classified into moral and intellectual, and is either general or partial. Moral insanity consists in a disorder of the moral affections and propensities without any symptom of delusion or error impressed upon the understanding. Intellectual insanity is a disorder of the intellect, and is characterized by delusion or hallucination of mind, manifesting itself either in the belief of things naturally impossible, or of facts so improbable when considered in connection with the evidence upon which the belief is formed that no person in his senses could believe them. But these general definitions do not afford to the unprofessional mind a sufficiently clear and comprehensive idea of insanity thus classified and defined, to enable it to apprehend those distinctions of

science and law which are necessary to the formation of a judgment in this case. And it is due to the accused when such tremendous issues are involved as here, that those distinctions should be marked and defined with the utmost care and exactness by the court.

"The mind, in its more general sense, includes not only the powers of the understanding, as perception, reflection, imagination, memory, will and judgment, but also the moral sense or conscience, and the disposition, propensities, affections and passions. The passions, inclinations and propensities indicate the state or impulses of the mind, and constitute what are termed the moral powers as contra-distinguished from the intellectual. The action of the intellect can only manifest itself to the observation of others through the action or conduct of the individual. All actions proceed from the passions or from motives acting upon the mind and influencing the judgment and will. We judge of the character of a man by his conduct, and as that is regulated by just or evil impulses, we determine the moral constitution of his mind. When, therefore, we speak of the moral powers, we are understood to refer to the propensities, disposition or temper of the mind; whilst on the other hand, when we speak of the intellectual powers, we refer to the faculties of judgment, will and conscience.

"Thus constituted, man is regarded by law as a free moral agent, endowed with the power of volition or choice among different motives presented to the mind, and of determining whether his conduct shall be good or evil. It also assumes that every man has the power of determining whether an act is right or wrong, and it is upon the existence of this moral sense and freedom of will that all law, human and divine, bases its authority and its sanctions. If a man were obliged to do exactly what he does—if, in other words, he has no liberty of choice between good and evil, and his judgment and will must yield to any motive, impulse or passion acting upon it—then the whole system of criminal jurisprudence is founded upon an error, both fundamental and ineradicable. Free and moral agency implies the entire subordination of the passions and propensities, or moral powers, to the will, and the power of the will to control them, and assumes that all the outward acts and conduct are directed or suffered by the will, and hence that they are voluntary. On this principle, society, in all its relations, reposes. It is applied without regard to the moral training of the individual in youth, or to irritability of

disposition arising from disease, or from temper, or passions habitually indulged. However perverted the moral sense or strong and uncontrollable the passions, the individual is, nevertheless, presumed to be possessed of a sense of right and wrong, and the power to control the will and to act from choice, and this presumption cannot be rebutted by any evidence which falls short of proof of insanity.

OF INTELLECTUAL INSANITY.

"We may now perceive more clearly what is meant by insanity, both mental and moral. And first of intellectual insanity: The characteristic mark of this affection or disorder of the intellect, is delusion or hallucination, and is either general or partial. In general mania, the hallucination extends to all kinds of objects and subjects, and generally manifests itself in frenzy or raving madness. In monomania or partial insanity, the hallucination is confined to a single object or a small number of objects. This is the species with which we have here to do.

"Its true legal characteristic is delusive, or that state of the mind which is indicated by a belief in something in itself morally impossible. As that trees walk, statues nod; or in the belief of a state of facts in their nature morally possible but of the existence of which there is an entire absence of all reasonable grounds of belief. It also sometimes manifests itself in a belief of a direct revelation and of a controlling and irresistible sense of obligation to obey the revealed will.

"This state of the intellect indicates the existence of a disease which in its effects subjects the will, judgment and conscience to the imagination with respect to the subject of the insane belief. *The influence of such belief or delusion over the mind is much greater than the power of any conviction or belief in the mind of a sane person, and directs and controls the will, judgment and moral sense with inconceivably greater force.* The individual thus affected may be able, in most respects, to reason correctly on any subject beyond the range of his hallucination and be not unfitted for the intelligent care and oversight of his business. Nor is the power of judgment and reasoning disturbed in any perceptible degree, even with respect to the subject of the delusion, as his conduct and reasoning are as logical and rational with respect to it as if the facts constituting the delusion were real and not imaginary.

"The law, as well as medical science, recognizes all these

forms of mental insanity, and has certain established principles applicable to the subject. For obvious reasons a higher degree of insanity must be shown to absolve a party from the consequences of criminal acts than to discharge him from the obligation of his contracts. A man is not to be excused from responsibility if he has capacity and reason sufficient to distinguish between right and wrong as to the particular act he is then doing, a knowledge and consciousness that the act is wrong and criminal. But in these cases it is not deemed sufficient that the individual has a general knowledge that the act is wrong in its nature, because this general knowledge may well consist with delusion as to the moral quality of the act, when considered in reference to the person and the circumstances believed to exist, and which in themselves constitute the delusion of insanity. There may be insane delusion with respect to one's moral duty under such circumstances, as well as in the belief which is the primary evidence of unsoundness of mind. From whatever cause the power of the will or conscience may be subjected or perverted by an insane affection, self-agency ceases, and acts done under the influence thereof are neither criminal nor punishable, because they are not considered voluntary. For this reason the law will excuse homicide on the ground of partial insanity in the following cases:

"*First*—When the accused takes life under circumstances in which the act would be excusable if the facts constituting the delusion had an actual existence, and were not mere hallucinations, as in defence of life or habitation.

"*Second*—When the act is done under a delusive belief of a Divine command and overruling necessity, or under a controlling sense of moral duty, which deludes and misleads the understanding and conscience with respect to the moral quality of the act.

"*Third.*—Where the delusion consists in the belief that a wrong has been done to the accused in a manner which, if true as believed, would not excuse homicide, but he is at the time of the commission of the act so affected by the disease as to be incapacitated from knowing that he is doing wrong, and is unconscious of wrong. But where such knowledge and consciousness exist the accused cannot be acquitted on this ground, as the act will be treated as one of revenge."

Certainly, the above will be accepted as very fair elucidation of the principles of mental disease, as they apply to the general order of cases. The nature, and especially the force

of a delusion, (expressed in the passage italicized in the reprint,) will be regarded as very well conceived, though few will agree in a subsequent statement that "a higher degree of insanity must be shown to absolve a party from the consequences of criminal acts, than to discharge him from the obligation of his contracts."

The popular idea of "moral insanity" is well expressed in the following observations. All is certainly conceded which the most strenuous advocate of that distinction of a disease can desire. The industrious distribution of the "Huntington trial"—that scientific *morceau* being the sum total of the literature of insanity which many a Western law library can boast—has given those who oppose the plea of insanity indiscriminately, some excellent matter for ridicule. As before hinted, those who now sustain the plea of insanity as witnesses, have to meet the broad burlesque on the subject which this book virtually amounts to. A proposition was actually made in the Hopp trial to quote its medical opinions as the sanctioned views of "the doctors!"

OF MORAL INSANITY.

"As defined by those medical writers who treat this disease, it consists in the existence of some of the natural inclinations, dispositions or propensities, in such violence that it is impossible not to yield to them. It is attended with no delusion or disorder of the intellectual faculties in any notable degree, and the mind is conscious of right and wrong while under its influence. And yet, notwithstanding this consciousness, the mere violence of the inclination to commit the act is so great as to overthrow all the power of resistance which the mind may be able to oppose to it. Under its influence the individual ceases to be a moral agent. When manifesting itself in the homicidal form, the inclination and desire to kill, is often indiscriminate in its violence, sometimes directing itself against the life of persons indifferent to the sufferer, as well as against objects of affection and friendship, and it is impossible for him to restrain the uncontrollable fierceness of the impulse or desire. The act is never influenced by revenge or any of the passions or a desire to gain temporal advantages from the homicide. It is said to overcome the power of self-control, and to act without motive of any kind, and frequently without premeditation, and consists in the mere violence of the propensity or disposition by which the will is overcome.

"Most certainly, if this form of insanity has any existence,

the doctrine of free agency can have no application to one affected with it. It is at least of exceedingly rare occurrence, and its manifestations, as it has been observed, bear a striking resemblance to crimes. Nevertheless, it is recognized by the medical profession, though it has been rejected by the English courts of justice as apocryphal. Yet it has been adopted by some courts of very high authority in this country, and what is of more consequence to us, it is impliedly recognized by the Supreme Court of this State in the case of Fisher. It is true it was not adopted in that case upon solemn consideration. Yet it must be regarded as the law of this case. But in saying this it is my duty to add that it was regarded as so perilous in the administration of justice by the Court which first promulgated it as a principle of legal science, as to induce the observation that this mania is dangerous in its relations, and can be recognized only in the plainest cases. It ought to be shown to have been habitual, or at least to have evinced itself in more than a single instance, or from its circumstances to bear unmistakable marks of instinctive and uncontrollable impulse. "Where this affection is alleged," says Dr. Ray, whose authority is one of the chief supports of this opinion, "in excuse for crime, it must be proved, first, that it was really present; second, that it had arrived at that stage in which its impulses are irresistible; thirdly, that it should be the exclusive cause of the criminal act.

"Governed by these rules there can be but little difficulty in determining the presence or absence of this disorder when it exists, and is really the cause of the criminal act, as it may be said that there can be no reliable case of moral insanity where any strong motive, or passion, or other exciting or adequate motive is found in the evidence. Hence, where the criminal act can be traced to a desire of gain, or to hatred, revenge, jealousy or any strong passion, excited by drunkenness, the act must be ascribed to such motive or impulse, and not to that irresistible impulse which is said to constitute the distinguishing characteristic of the disease."

Truly unfortunate has it been for our professional specialty, that the term "moral insanity" has ever had mention. The phrase itself is a luckless invention, not only liable to an infinitude of misconception, but conveying ideas calculated wholly to mislead. It is as if there was some separate kind of insanity, located in some *terra incognita* which no man has yet discovered, wholly independent of the brain or any of its functions or operations. What is its seat or what are the or-

gans of its abode or production, are questions which those who employ the term are themselves puzzled to answer. It does not seem to be considered by those who give currency to the expression that its whole idea implies another centre of sensations, emotions, or passions, than their great legitimate one, the brain.

In the first place, it may seriously be questioned whether such a case as is usually described to set forth the idea, is ever actually seen. Experience brings before the mind a multitude of cases, not actually realizing the full idea, but which are close approximations to it. Now it is this close resemblance between cases which do exist and a certain ideal of disease borne in the imagination which leads us astray. The small difference which does exist between the case which every one has in hand and the ideal one, is always enough to destroy the value of the instance.

It has always seemed as if all that is included in the idea of moral insanity, might be better disposed of by a closer reference to phenomena of insanity which are of every day occurrence. Every one realizes how few of the delusions of the insane mind are ever revealed, and how readily they are revealed under one set of circumstances and concealed under others. All insane asylums abound in cases of unquestionable mental disease, where its palpable manifestations are so slight that the unskilled observer would doubt its existence. A certain suspicious reserve, a mysterious shyness of manner, some haughtiness of bearing, or some thing marked and singular in gait, or tone of voice, some strange attachment to a particular seat, or special stress applied to the doing of some trivial act, may be all that distinguishes the individual from other men. Yet one guided by experience has no hesitation in declaring such cases to be instances of latent delusion; and is prepared for the sudden exhibition of extreme or violent acts of which any of these almost unobserved antecedent peculiarities furnishes the explanatory key. In such cases, the extent of the disease is not at all measured by what appears on the surface.

The delusion which has possession of the mind may even have no outward form of manifestation whatever, that can be detected, and yet may give rise to all those singular, inexplicable, and perhaps violent acts, which a failure to explain by any anterior indications of delusion has styled moral insanity. It is very easy, especially with those much conversant with the insane, to conceive a case possessing all the attributes as-

signed to the form of disease here called in question; but before admitting any such case as an existing fact, the possibility of a latent delusion underlying its characteristic perversities of conduct should be deeply considered.

It may be said, in reply to this view of the subject, that it assigns to delusion too indispensable a place in all cases of insanity, whereas it is well known that in many cases of even partial mania no such feature is believed to exist. This does not necessarily follow. Delusion among the insane may be supposed to bear about the same relative part in their unnatural acts that a well defined motive does in the acts of those who reason correctly. Persons possessed of reason perform the larger portion of their acts from no actually considered motive of which they are conscious. Acts are done from an impulse which is, after all, the result of some former reasoning process. So the phenomena of moral insanity, so called, may follow some former delusive process of thought of which the individual himself has no consciousness, and which, of course, no skill of another can detect. If this explanation is not in all cases satisfactory, it at least has the merit of enabling us to pass a stumbling block now almost invariably thrown in our way whenever we appear in court.

THE PEOPLE'S INSTRUCTIONS.

"In applying the principles of the law of insanity as thus defined, to the particular circumstances of this case, the Court instructs the jury on the part of the People, and in their behalf, that if they believe from the evidence:

"*First.*—That the mind of the accused was affected with insanity, only while in a state of drunkenness, and that with a knowledge of this predisposition and of right and wrong, the accused voluntarily put himself in that state and committed the act with which he is charged, the act in that case is criminal in the same degree as if there had been no predisposition to insanity when under the influence of drunkenness.

"*Second.*—That even though the jury should find that the accused was affected with insanity by reason of a delusion in regard to his wife's fidelity, yet if they further find that at the time he committed the act he had a perfect knowledge of right and wrong with respect to the act itself, and was under no delusion with respect to its moral quality, then the law regards him as a moral agent in the commission of the crime and subject to its penalty.

"*Third.*—That insanity produced immediately by intoxica-

tion does not destroy responsibility, and if the jury find from the evidence that the accused, while sane and responsible, voluntarily intoxicated himself and in that state committed the act, they will find him guilty.

"*Fourth.*—That if the jury believe from the evidence that the accused, when free from the influence of intoxicating drinks, was uniformly sane and rational, and forbore all violence towards his wife, and that for a series of years prior to the commission of the act in question, he was accustomed, in fits of intoxication, to use violence upon her, and knew that such violence was the immediate result of such intoxication, and that having such knowledge he voluntarily made himself intoxicated on the day of the homicide charged in the indictment, and that such act was the immediate result of such intoxication, then the defendant is responsible for the crime, although he might have been laboring under some insane delusion at the time.

"*Fifth.*—That if the act was done by the accused under the influence of passions excited by drunkenness, or jealousy, or hatred, without provocation on the part of the deceased, or any danger to life or limb, that in that case the accused is not entitled to be excused from the consequences of the act on the ground of moral insanity, however strong or irresistible the passion may have been under which the act was perpetrated.

"*Sixth.*—That if the jury find that the accused was actuated by malice, jealousy, or other feeling of hatred, or from passions excited by drunkenness, at the time of the killing, then he is guilty of the crime of murder, though the jury may find that he was affected with insane delusion with respect to his wife's chastity."

Now, this will certainly be regarded, in view of some points in the evidence, as rather hard measure for the prisoner. The second and fourth parts of the instructions must bear upon the accused with little less than fatal effect. Granting the great material fact that the prisoner is an insane man, it hangs his only hope upon what a jury may conceive to be a "perfect knowledge of right and wrong with respect to the act itself." The effect of this position is to show that a mind may be radically diseased, and yet, upon the very point on which it is diseased, a nice and logical reasoning may, and indeed does, go on as to the quality of the act being done. It forces the prisoner to become a casuist while pressing forward to a violent act, under the irresistible control of an insane delusion.

If Hopp believed, on grounds insanely wrong, that his wife was wickedly unfaithful—bringing ruin and perdition on herself, and disgrace on her family—and regarded her death as necessary, and, as he informs the by-standers after the fatal blow had been struck, "meditated for ten years," could he have had "a perfect knowledge of right and wrong with respect to the act itself," as we understand the general ability of an insane mind to compass such knowledge?

The effect of setting aside the actual degree of the mental disease as a measurement of criminal responsibility, and substituting a fancied perverted use of the canons of good logic, as applied to some unnatural transaction, is seen at once. The fatal tendency of allowing a certain knowledge of right and wrong in regard to the acts of the accused to set aside any extent of insanity without that knowledge, is clearly shown in this case. When the delusion was lifted from his mind, by the absence of the object of it, as an inducement to procure her return, he actually acknowledges the wrong of his ill treatment, attributes it to liquor, and promises, under oath, to drink no more. Yet who does not see how unjust to the prisoner is this self-conception of his wrong when it is viewed by others in connection with his disease? In the "good time coming" we shall probably have done with all this, and deal more with the simple question of the actuality and degree of the insanity, and of the disjointing of the reasoning processes generally.

INSTRUCTIONS FOR THE DEFENSE.

"And the Court, on the part and behalf of the accused, further instructs the jury:

"*First.*—That if they believe from the evidence that the accused was at the time of the killing not drunk, but laboring under a fixed and insane delusion as to his wife's infidelity and want of virtue, and that such delusion operated so powerfully upon his understanding and will as to render him incapable of perceiving or being sensible of the moral quality of the act, or knowing and acting upon the principle of right and wrong, in relation to the act, then such insanity entitles him to an acquittal on the ground that he was not a free moral agent.

"*Second.*—That if they believe from the evidence that the act of killing was the offspring and consequence of insanity in the accused, and not induced by drunkenness, hatred or malice, and that such insanity was the offspring of delusion

in regard to his wife's chastity, and so great as to overcome the will and obliterate all consciousness of right and wrong with respect to the act, or induce a fixed and insane belief that its commission was one of duty, then the jury should acquit, although they may believe that the accused was capable of reasoning correctly, and impressed with clear conceptions of right and wrong, with respect to the act of killing in general.

"*Third.*—That if they believe from the evidence that at the time of the commission of the act charged, the mind of the accused was laboring under an insane delusion caused by disease and not excited by drunkenness, with respect to the existence of facts, which if true would excuse homicide—as that a known felony was about to be committed—and that overcome and impelled by such delusion the accused took the life of the deceased to prevent in his insane belief the commission of the felony, then the act of killing must be considered the direct effect of disease and not of a mind capable of volition or choice.

"*Fourth.*—That if they believe from the evidence that the homicide committed by the prisoner was not the act of a man operated upon by motives and governed by the will, but the result of a mere uncontrollable impulse, communicated to his mind from insanity of the moral powers, and not by motives of hatred, jealousy or drunkenness or other passion impelling to the act, then the act was one of moral insanity. But in determining this question, the jury should have reference to the more exact definition of moral insanity given in previous instructions on this subject.

"*Fifth.*—That if they find from the evidence that at the time of the killing the mind of the accused was affected with insanity caused by disease, and that the act was the effect of such insanity and not of passions or insane delusions resulting direct from voluntary drunkenness, then the defendant stands excused on the ground of insanity. But in such case the jury must be satisfied that the insanity was of such a nature as to obscure the mind with respect to the moral quality of the act or induce the belief that it was necessary in self-defence; for though insane delusion may have existed, yet if it was not of such a character as will excuse homicide, the accused is not entitled to an acquittal on that ground.

"*Sixth.*—That if they find that at the time of the homicide the accused was affected with such insanity as would excuse from the consequences of acts otherwise criminal, then the

homicide is excusable on the ground of insanity, though the jury may believe from the evidence that such insanity was occasioned by past excesses of drunkenness. Where a person is insane he is not responsible criminally, although such insanity be remotely caused by indulgence in spirituous liquors. But it is otherwise if he is intoxicated at the time, and his insanity or delirium is the direct and immediate effect of such intoxication.

"*Seventh.*—That if the jury are convinced from the evidence that the killing was the immediate effect of an insane delusion concerning his wife s chastity, so affecting his mind as to control the will and obscure his perception of right and wrong with respect to the act, and that such state of mind was not the effect of passions excited by ardent spirits, then the act is excusable on the ground of insanity, though he may have been drinking. But the conviction of the mind on this point should be clear, and care should be taken not to confound passions excited by liquor with those which are the natural effects of insanity. For if insanity existed, but would not have manifested itself in homicide if it had not been stimulated by excitements caused by liquor, then the act is not excusable on the ground of insanity. But if the jury can reconcile the evidence tending to prove drunkenness, with a conviction drawn from the evidence that the act was one of insanity and not the effect of drunkenness, it is their duty to refer the act to insanity and acquit the prisoner on that ground.

"*Eighth.*—That if the jury shall find that the accused, before the commission of the act, was affected with insanity of a nature to obscure and overcome his moral perceptions with respect to the act committed, then the burden of proof is upon the prosecution to show that he was not affected with such insanity at the time of the killing."

An examination of the above will show how little the accused has to hope from any instructions which will not recognize the disease and the vicious habit as two incidents, to be separately considered. The first section, for instance, can be of no effect, because the defense does not deny the fact of the drinking on the day of the homicide, probably to the extent even of intoxication. The insanity and the drunkenness are put too much in the light of incompatible states to enable the idea of the former much to aid the accused. The fatal idea that the prisoner was *either* insane or drunk, was that which a juryman, not much in the habit of thinking, would most

likely entertain; and the instructions of the Court fail to give the prisoner all the advantage which his defense claimed for him in not recognizing drunkenness as possible to be superadded to insanity, and allowing the onus of the crime to fall upon the permanent state, and not upon the accidental one. The references to the condition of drunkenness through the following sections of the chapter, except the last, sustain the same connection of the two ideas, and allow the mind the easy duty of merely holding the two states as incompatible—connecting the one always with the idea of guilt, and the other only with the possible one of innocence. If the idea of the eighth section had been the leading one through all the instructions to the jury, it is evident that a new complexion would have been given to the case.

It is an unfortunate omission in these instructions that the minds of the jury were not as much carried back to the idea of premeditation as the evidence warranted, but allowed to contemplate the act as one of impulse merely. In what does the actual guilt of the crime of murder consist? Not alone, or principally even, in striking the blow that deprives of life, but in that premeditation which resolves on, and shapes the manner, of the deed. The law recognizes this by holding him guilty who aids or countenances this premeditation of a crime. Now, taking the prisoner's solemn declaration, an hour after this homicide, it had been the intention of years. That deliberate purpose could not have been the effect of drunkenness; and if not, what was it but insanity?

CONCLUDING INSTRUCTIONS.

"In conclusion the Court instructs the jury, that it is their duty to give a careful consideration to all the facts and opinions in proof, throwing light upon the insanity of the prisoner at the time in question. On this subject, medical opinions and evidences are entitled to attentive and respectful consideration. And if the act is proved to the satisfaction of the jury, by the weight and preponderance of the evidence, to have been one of insanity only, the prisoner is entitled to an acquittal, *though that defense should not be proven beyond all reasonable doubt.*"

Whatever of criticism may have been bestowed on any of these preceding observations, the italicized portion of the above is a concession to the plea of insanity that will certainly procure for Judge Manierre the regard of those entrusted with the interests of the insane. It is the first time, to our knowl-

edge, that insanity has been allowed the same privilege as actual crime, in having the "benefit of a doubt." Hitherto, while all doubt in ordinary criminal prosecutions enured to the prisoner's benefit, doubts in regard to sanity did those who denied it in plea no good whatever. The proof of insanity must be positive, or else was set aside as of no sort of weight. Slight though this enunciation may be, it should be treasured as the dawn of new and better things in this department of jurisprudence.

The prisoner was convicted of murder, though it is believed that another trial may be had.—*American Journal of Insanity.*

EDITORIAL AND MISCELLANEOUS.

Insanity and Intemperance.—We do not need to apologize for introducing to our pages the interesting paper of Dr. McFarland on this important subject. It was found impossible to make a satisfactory abstract of it and do the author justice. We had partially prepared a paper based upon our own knowledge of the Hopps case, as intimated in the January number of the JOURNAL. But the large experience of Dr. McFarland, combined with the advantages which his position, as Superintendent of the Illinois State Asylum for the Insane at Jacksonville, gives him, must render his views vastly more impressive and worthy of weight that anything we might advance.

At the first trial William Hopps was convicted because intemperance was proved. The facts of his insanity could not be disproved and the attempt was scarcely made. It has thus been gravely decided that intemperance is proof positive of sanity! Are intemperance and insanity incompatible? Both jury and court manifested the belief that they are.

Notwithstanding the complimentary mention of the presid-

ing Judge in this case by Dr. McFarland, we cannot overlook his seemingly studied insult to the intelligence of the medical experts present in intimating that they were not capable of distinguishing, or neglected to distinguish, the manifestations of insanity present from those of drunkenness. In his remarks overruling the motion for a new trial, he deprecatingly insinuates that the medical experts were probably not aware of the prisoner's intemperate habits! When every one of them knew that this was the very point in issue, and consequently paid especial attention to that identical investigation!

Did space permit we could point out other important evidence of (designed?) misrepresentation of the positions assumed and statements made by the medical experts examined. One medical man, for instance, who was called for the defence against the remonstrance of some of the council and all of the experts, on the ground that he was incompetent to give an opinion in the case, blunderingly attributed the remarkably quick pulse of the prisoner to "an enlargement of the heart"! whilst every other physician expressly denied such a condition. When we mention that Drs. McFarland, Parker, Wing, N. S. Davis, Rea and others, certainly competent to judge, decided that there was no such disease, it is certainly surprising that the Court, fully cognizant as he was personally of the position of affairs, should have dignified this single blunder into a difference of opinion on the part of the experts,—and this with a life at stake. *Ab uno disce omnes.*

But William Hopps will have another trial. An insane man is not to be hanged in this age of the world, either to gratify the revenge or avarice of his family, or to put additional plumes upon a jackdaw prosecuting attorney, with saloon-political influences.

Morbid Anatomy.—That capital observer, practitioner and lecturer, Dr. Thomas K. Chambers, appositely remarks: "It is very rarely that which can be put up in a bottle, made an interesting preparation or picture of, that the patient feels,

and that it is the business of your life to help him feel less. The true use of morbid anatomy is to teach physiology, not the art of medicine."

The study of morbid anatomy has contributed but a mere trifle to practical medicine, save through the light it has thrown upon physiology. Yet how many *post mortems* are performed, and sage inferences drawn from them, by those who know nothing of physiology!

The same idea is applicable to the study of chemistry, and even Materia Medica. Medicine will not progress, as the science now warrants, until physicians become throughly acquainted with physiology. It is the great want—worth infinitely more to the individual practitioner than a score of National Associations, or any whole chapter of legislative enactments for the protection of "the dignity of the profession."

A practice in these days which is not corrected by, if not indeed in large part based upon the scientific teachings of physiology, rises but little above, save in name, the baldest empiricism.

The erroneous practice often built up on the basis of mere morbid anatomy, has historically proved so destructive, that it becomes almost a question whether the world would not thus far have been better off if a *post mortem* had never been performed. Yet, with reference to its bearing on physiology, the *post mortem* can scarcely be over-rated in importance. The light shed upon medical practice has ultimated in the remediless ruin of the pitiless bloodletting, starvation, and tissue-destroying schools. And yet within the last few weeks we received the details of a case where an antediluvian practitioner in this city, as ignorant of the science as his horse of astronomy, when called upon, as he arrogantly stated, "*not to consult but to instruct*," kept the patient, a delicate lady who had just passed through a severe labor and was wholly anæmic and exhausted, upon *Rice Water and alterative doses of Calomel*, until death by inanition was the necessary result.

We denounce such a practice as without the pale of the profession, as brutal—not merely wanting accordance with the present high state of advance of the profession, but as meriting the penitentiary, and essentially damnable.

Nevertheless this ignorant beast is permitted to call himself a "regular physician," and is even admitted the privileges of consultation with some otherwise respectable men. And educated medical men are held responsible for the murderous antics of this bragging dotard—ten times a quack though a thousand antique diplomas were piled upon him!

Absorption.—Long since we read a book by Millingen termed "Curiosities of Medical Experience." It is our favored lot to add another to the catalogue.

Not a thousand miles from the "North Side," and not long since, in fact within the last month, a lady was confined—a not unusual circumstance. The Dr. was not long detained. A child was born, a placenta and belongings safely removed, a bandage placed around the abdomen *secundem artem*, and Medicus went on his way rejoicing. Not long after, he was sent for, as pains were still troublesome. An opiate was prescribed with orders to repeat p. r. n. But before long he was again sent for, and ordered, in addition to the anodyne, a poultice over the abdomen.

The visits were several times repeated, and anodynes and poultices long persevered with, but in vain. Visions of Puerperal fever, with all its horrors, cast a shadow of gloom over the household. After much long-suffering (forty-eight hours) the patient and friends became impatient, dismissed the attendant and sent for Dr. ——, who, in despite of his old bachelorhood, enjoys large repute in this and a similarly delicate class of cases. Palpation, notwithstanding the thick poultice, discovered through the abdominal walls the outline of an enlarged uterus, and *another child.* The Dr's expletive on the occasion is said to have been worthy of Abernethy in his best days, and the expression of his pleasant countenance worthy

the brush of Hogarth. Suffice it to say, the child was speedily brought to the light, although, alas for the delay, not to life. Meanwhile the inquiry running around the fraternity is: Was the poultice put on to remove the uterine contents by favoring suppuration, or absorption?

Cholesterine.—J. H. Salisbury, M. D., in a series of experiments in the *Am. Jour. Med. Sci.*, April 1, 1863, found cholesterine and seroline in health as secretions, of the Salivary, Tear, Mammary and Sudorific glands; of the Testis and Ovary; of the Kidneys in Hepatic derangements; of Mucous Membranes when congested and inflamed; and in the fluid of Ascites and that of Spina Bifida. He states that the sudorific glands secrete them largely during the sweating stage of intermittent, remittent, varicella, diphtheritic conditions, typhoid fever, and *diabetes mellitus.* Seroline is also secreted in remittent. Butter, beef and hog suet contain both. Human milk previous to birth is rich in cholesterine, but no seroline was detected. After birth and during nursing the milk contains both largely. The milk of the cow is rich in both. As cholesterine has also been found in vegetables, it would seem to be a very common constituent of organic substances. It may be a peculiar product of nervous action and change, but evidently has other sources. It is a pretty subject to theorize about.

Enchondroma.—The Hahneman College of this city has, during the last winter, been edified by several clinical lectures upon what was called a case of spinal cord disease. The sugar plum gentry sat in council over it, and great was their jubilation that the unfortunate lad did not die whilst under the magic influence of doubly-dilute attenuations and triply divided infinitesimals. The potencies were used with an unsparing hand—but as the months went by without improvement, the father of the lad became impatient and ultimately called upon an intelligent physician. There is complete par-

alysis of one arm and nearly complete paralysis of the other. There is general wasting of the muscles of the shoulders and arms, to a strongly marked extent. With these exceptions the patient, a boy of some five or six years of age, is evidently in robust health.

Examination shows the presence of an enchondromatous or bony tumor, involving the arches of the first dorsal and last cervical vertebræ, perhaps one upon each side, or connected by outgrowth anterior to the bodies of the vertebræ. The tumor is much more prominent and larger upon the side completely paralyzed than upon the other.

The paralysis is seen to depend wholly upon the mechanical pressure of the tumor upon the brachial plexuses. The tumor was wholly undiscovered and neglected by the *ass-tute* spiritualistic practitioners.

The particular attendant in this case was recently heralded in the daily press as the author of a profound published essay on *Diphtheria.* It is suggested that he add an appendix on Paralysis.

Glycerine Locally in Fevers.—Jno. E. Ennis, M. D., of Lyons, Iowa, communicates to us his satisfactory experience in "the application of Glycerine to the lips, tongue and fauces in cases of continued fever, where the patients complain so much of these parts being dry and parched."

"It does not evaporate like water; is quite pleasant to the taste, and by applying three times a day perfect relief is obtained. It seems to dissolve the dry coating on the lips and tongue, and in one or two days they assume almost their natural condition. I have used it in the army during the last two years in numerous cases, and can speak positively of its beneficial effect."

Health: Its Friends and its Foes.—By R. D. Mussey, M. D., LL.D., late Prof. Anat. and Surgery at Dartmouth College, N. H., and of Surgery in the Medical College of Ohio

Fellow of the Am. Acad. of Arts and Sciences, &c., &c. Boston, Gould & Lincoln, 1862.

This little work contains the well known peculiar views of its venerable author upon hygienic subjects. By no means coinciding with his opinions upon certain mooted points, the long experience and profound sincerity of the author, together with his really valuable elucidation of many important topics will warrant us in commending the book to the perusal of our readers. Students and practitioners have no more imperious duty than that of acquainting themselves with all the facts bearing on the subject of hygiene. Sanitary Reform is the greatest object of thought for the present age.

Lotion for the Hair.—A. R. Terry, M. D., of Detroit, after properly reprehending the use of the numerous oils and greases for the hair states: "An excellent cleansing lotion for the hair, when it is unhealthy and inclined to fall, is the following: ℞. Tinct. Cantharid ʒ ij; Aq. Ammon. ʒ iv; Alcohol, ʒ ij; Aq. Pur. ʒ viij; M. S. a tablespoonful of this may be added to half a pint of cold water, and the head thoroughly washed with it, either twice or thrice a week, or every day, according to the urgency of the case. The falling out of the hair will be generally checked in a week or two, and a new crop begin to appear; but the remedy should be continued for some weeks after. The mixture may be perfumed by the substitution of Cologne or Lavendar Water for the Alcohol, or by the addition of some aromatic essential oil in small quantities.

Bunions.—The same gentleman remarks that Bunions are often the result of Rheumatism or Gout. More frequently they result from the absurd custom of making boots and shoes much narrower across the toes than across the ball of the foot, an almost incurable vice of the shoemakers.

When the inflammation is of a slow or chronic character an ointment of Veratriæ will be found useful: ℞. Veratriæ, gr.

viij; Adipis ℥j; M. S. Rub this on the joint night and morning. In some cases the application of a blister, or of solid Lunar Caustic, sufficient to produce a blister, and followed by a poultice, has been found effectual in checking the inflammation.

Dilute Nitric Acid, or a strong solution of Hydrochlorate of Ammonia will often relieve mild cases. Tinct. Iodine has acquired repute for the same object. But a properly shaped boot or shoe, especially for the growing foot, is the great remedy and preventive agent.

Glycerole of Tar.—A combination of Glycerin and Tar is recommended in skin affections instead of the tar ointment of the pharmacopœia. ℞ Glycerin, ℥ vj; Tar, ℥ vj; Powdered Starch, ʒ ij. Warm the glycerin, stir in the starch, add the tar, and raise the mixture rapidly to the boiling point. Strain through a cloth, if necessary, and stir while cooling. The addition of the starch is found necessary to secure a uniform mass. It should be dark brown, perfectly smooth, and somewhat softer than the ointment.

Graduates of the Medical Colleges.—Bellevue College Hospital, 42; New York Medical College, 11; N. Y. Ophthalmic School and Hospital, 16; Med. Dep. Univ. Buffalo, 24; Med. Dep. Univ. Pennsylvania, 78; Jefferson Medical College, 82; Med. Dep. Univ. Michigan, 39; Cincinnati Coll. Med. and Surg., 25; Medical College of Ohio, 27; Starling (Columbus O.) College, 36; Long Island College Hospital, 11; *Rush Medical College*, 58.

Iodurated Frictions in Pleurisy and Endocarditis.—Prof. Delioux (*Gaz. Medicale de Paris*) strongly urges frictions of Iodine to promote removal of the plastic exudations of pleurisy, &c. He prefers to the Tinct. of Iodine a pomade which in general he finds most useful: ℞ Iodine ʒ ss; Iodide of Potassium ʒ ij; Axunge ℥j. Mix. This combination is very

active, indeed, requiring, where the skin is delicate, to be used with care, but it leads to the introduction of appreciable quantities of iodine into the system more certainly than any other mode. The skin should first be thoroughly cleansed, and the ointment rubbed in strongly for at least five minutes over a space somewhat larger than that affected. Repeated, say morning and evening. In the meantime the part should be covered with a layer of cotton wadding, over this oiled silk, and the whole secured in position by a bandage.

In twenty cases Prof. D. found this to triumph completely over the exudations. Treatment lasted from fifteen days to two months, in the last case there having been inflammation over both pleuræ.

He did not find it as useful in pericarditis, but in endocarditis the blowing sound rapidly disappeared on its use. Probably similar advantage might be gained in peritonitis, &c.

Cazeaux' Midwfery—*New Edition.*—We have been advised that this work was forwarded to our address through Wm. B. Keen & Co., booksellers, of this city. We can trace it in its transit just so far as we were enabled to trace Prof. Gross' Surgery, a year or two since, and then it mysteriously disappears, as did those lamented volumes. We had not even the melancholy satisfaction of losing them by loaning, as we have succeeded in distributing professional intelligence from our private library. *Non est inventus*—and we have a shrewd suspicion who (if he happens to read it,) will be be better posted in obstetrics by its possession.

We assure him it is a standard authority upon the subject of which it treats, and is richly worthy his perusal. Our loss will be his gain in this world, perhaps, but we earnestly fear not "in that which is to come."

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SELECTED.

EXTRACT FROM A LETTER TO THE SURGEON GENERAL OF MASSACHUSETTS.

From J. F. GALLOUPE, M. D., Surg. 17th Mass. Vols.

I presume that before this time you have had full details of the "malarial disease," as it is called, which now prevails here; the disease is not malarial in its origin. The fact that it prevails in the winter, when malarious disease does not originate; that it prevails among troops recently arrived here; that it is not paroxysmal in its character; that it is not modified by quinine; and that the pathological changes are totally unlike those which occur in paludal disease, all prove that it is not due to miasm.

I. *Cause.*—That the disease is caused *generally* by living in barracks made of green lumber, and insufficient ventilation, is obvious. The 43d, 45th and 51st regiments were encamped as near together as it was possible for them to be. The former was in tents, and had none of the disease. The two latter were in barracks, and in about four weeks after their arrival the disease began to appear. Upon the average, two cases and two deaths per week occurred in each of these regiments. At last the prevalence of the disease created alarm, and the 45th were ordered to change their quarters; this being done,

no new cases appeared. The disease continued to prevail in the 51st until they were removed from barracks, when it suddenly disappeared. What has been said of the 45th and 51st, is also true of the 44th.

The barracks are made of perfectly green hard-pine lumber, and so constructed as to allow only 180 feet of air to each man, with no adequate ventilation. During the stay of the 45th in barracks they had five cases, all of which were fatal. The 51st have had seventeen cases, all of which have been fatal. The 44th have had twenty cases, twelve of which have been fatal; the remaining eight are now under treatment. One case of this disease occurred in my regiment last summer, in a man who was employed in building a block-house of green timber; he occupied the building as his quarters.

I have said that the disease is *generally* caused by living in barracks made of green lumber; but this is not the only cause, for a few cases have occurred among troops not thus quartered. A lad nine years old, son of one of our officers, was attacked with the disease; he lived in a good brick house, and was in all respects well cared for, and, up to the time of the attack, had been perfectly healthy. His case exactly resembled those which occurred among the troops—in fact it was a *pattern* case.

The victims of this disease, so far as my observation extends, have been the most healthy and vigorous men. I have conversed with several of the most intelligent people who reside here (including a physician), and they all agree in the statement that the disease, as an epidemic, never existed here before.

II. *Symptoms.*—The patient is attacked, without warning, with a rigor more or less severe; pain in the head, back and legs, the latter being the most severe; delirium; vomiting; thick white coat on the tongue; bowels constipated; sometimes retention of urine. In some cases "petechiæ" of large size are extremely plentiful from the *outset*, in other cases this symptom does not appear. In some cases the force of the disease is so great as to destroy life within twelve hours; in others, the patient continues to live without marked change in the symptoms until the strength gradually succumbs, in a period varying from two days to several weeks. I have not yet known a case of perfect recovery; the one nearest approaching it, that I have seen, was a case which came before the Board of Examiners for discharges, of which I am a member; this man was completely broken down; he had chronic iritis and permanent blindness of one eye.

III. *Pathology.*—Uniformly the disease is found to be inflammation of the meninges of the brain and spinal cord. When death occurs early, say in twelve hours after the attack, the arachnoid at the top of the brain is found to be opaque; the disease extends from this point to the base of the brain, and down the spinal cord. If the patient survives the attack for two or three days, large coagula of lymph are found beneath the dura mater, from the top of the brain to the cauda equina; at this stage of the disease the lymph is of a greenish-yellow color, and partially disorganized; there is also some softening of the cerebral substance, but I have not yet seen pus. Sometimes the dura mater is adherent. There is also effusion of serum beneath the dura mater, and into the ventricles, amounting in some cases to five ounces. In many cases a considerable amount of congestion is found, but this condition is by no means constant. The disease appears to originate in the arachnoid. In all the cases that I have seen no other organic lesion has been found, acute or chronic, than the one above described, although the thoracic and abdominal viscera have been carefully examined.

IV. *Treatment.*—No treatment has been of any avail. When the disease first appeared it was supposed by those who had it in charge to be of malarious origin, and was consequently treated by quinine. Other cases have been treated antiphlogistically—by venesection, cupping, blisters, cold applications, sinapisms to extremities, cathartics and mercurials. When petechiæ appeared early in the disease it was treated as typhus, with oil of turpentine, &c., and supporting diet. These different plans of treatment have been combined as indicated by the symptoms, and, so far as my knowledge extends, without favorably modifying the course of the disease.—*Ibid.*

NATURE AND CAUSES OF DIPHTHERIA.

The pathology of Diphtheria is not elucidated by autopsies, or by chemical or microscopical examinations. No special structures are invaded, or characteristic lesions discovered; only everywhere is found a dark, grumous blood, filling

equally the veins and arteries, and stagnated in various organs. MM. Millard and Peter first pointed out that the blood was of a dirty brown color, resembling liquorice juice or water containing a mixture of soot.

During life there are conclusive proofs, in the malignant cases, of a poisoned, disorganized condition of the circulating fluid—the dark, grumous blood issuing from the tonsils when roughly touched, the spontaneous hæmorrhages, the muscular weakness, the prostrated nerve-power, the clammy sweats, the rapid, soft and shaky pulse, the sphacelation in the fauces, the sequelæ—anæmia, paralysis, etc., the gradual sinking of the patient, and the extinction of life without effort at reaction, or the slightest tokens of constitutional resistance. The evidences of a blood-contamination, equal to those seen in typhus, are infinitely greater than those presented in other diseases now universally conceded to arise from this cause. Chemistry detects no material poison in the air during a diphtheritic epidemic, nor any foreign element in the blood, or any change in its constituents, where patients have died of this disease. The changes, and the agencies producing them, whatever they may be, are inappreciable by this means of investigation.

The enlarged vision afforded by the microscope likewise reveals no sensible alteration in the blood; and the naked eye, which recognizes the fact of the transudation of the liquor sanguinis, and its concretion into a pseudo membrane, gives us equal information with the most powerful glasses. The fibrillæ, granules, pus-cells, etc., that are found, are not distinctive; and the much talk-of algæ are frequently seen on mucous surfaces when covered by morbid secretions. Their ova exist in the atmosphere at all times, but are not developed unless a favorable *nidus* is presented.

From these purely scientific investigations, so rude in comparison with the finer operations taking place in living organisms, we, in this instance, can gain no light, and are obliged, perforce, to learn the true nature of Diphtheria by actual observation in the trial of various modes of treatment. If the free use of stimulants, in the beginning and height of the disorder, subdues the fever, removes the inflammation, causes the membrane to fall, prevents relapses, and, in a word, accomplishes a cure at once rapid and permanent in almost every case where the treatment is commenced early, we must be forced to the conclusion that Diphtheria is a disease of low action—ataxic—and that the inflammation attending it is certainly not idiopathic and active. This is further shown by the

greater success following this mode of treatment than any other; and by the significant fact that malignant cases usually escape the *dissolved* state of the blood, and paralytic accidents are, by the same medication, easily remediable.

The cause of Diphtheria is an interesting theme for speculation. There need not be a material agency—a septic poison in the atmosphere—as is the general opinion; which, received into the blood, multiplies itself, like a ferment, and thus contaminates the entire circulating mass; since a change in the normal constituents of the air, or a variation in its electric condition, might render it less adapted to fulfil its part in the transformations constantly going on in the lungs, whence would arise a defect in the vital elaborations of the blood. A faulty state of the atmosphere—one that imperfectly supplied the blood with the influence necessary to its constant renewal—would be scarcely felt by the strong and robust, but would tell with the most effect on the debilitated or those of little vital power. In our experience, the subjects of Diphtheria are, almost universally, children; and when it attacks adults, those of little stamina are singled out, who, at the time, are suffering from unusual exhaustion. Of the former, those inheriting a scrofulous constitution, or any other vicious state of the system, are the ones, as a rule, that are seized. The child has not only to maintain the body *in statu quo*, like the adult, by the constant renewal of the worn-out material, but also to provide for growth and increase. Hence, children inheriting any depravity of the constitution are always pale, debilitated and sickly, and prone to disease; though, should they survive to mature years, they frequently become strong and robust.

That an inappreciable relationship of the atmosphere may render it less fitted to effect the constant changes and renewals of the blood that take place in the air vesicles, and less adapted to elaborate and vitalize it, particularly where there is a defect in the powers of the individual, is more apparent when we recollect that the circulation is the medium for the ingress and egress of all the new and effete materials of nutrition; that constant changes are here going on, affected by living structures; that the blood circulating in its vessels is organized equally with the solids; that in both solids and fluids, by the agency of absorption, assimilation and nutrition are effected. A dtssimilarity between the solids and fluids is apparent, not real. The blood-globules or cells are not fixed in one locality, like the cells in the tissues, but are designed, from their office, to float in their nutritive plasma. Hence any noxious material

in the blood, or any impediment to its vital transformations, will, equally with changes in solid structures, engender disease. That the cause of Diphtheria is not an animal or vegetable poison, but a state of the air that impairs the vital status of the blood, is further shown by the following considerations: Diphtheria prevails in all seasons and climates, equally in primitive or miasmatic regions, equally in well-cleaned streets, among the better classes, or in courts and alleys among the victims of want and vice; indeed, filth, poverty, vegetable and animal effluvia, do not increase its virulence or cause its dissemination. It is not self-limited, has no fixed stages or increment and decline, may recur several times, does not attack indiscriminately, but as a rule, singles out scrofulous children, or at least individuals whose constitutions are reduced and blood impoverished; and more than all, Diphtheria is not inoculable. M. Trousseau introduced the exudation into his arm and tonsils; and M. Peter inserted it into his lips, rubbed it over his fauces and had it coughed into his eye without any bad result. In fine, we have no evidence that Diphtheria is contagious, or in any way passes from one individual to another. My observation teaches me that, though more than one of a family may be attacked simultaneously, or within a few days of each other, the disease is not communicated to visitors, or to other families in the house. It might be expected that, of a number of children of like organization and habits, breathing the same air and eating at the same table—or, in other words, having similar surroundings—more than one would be attacked at or about the same time. Generally, however, cases of Diphtheria occur here and there in distant localities; whereas, had contagion any influence in the matter, the disease would not be thus limited, or its victims far separated. Diphtheria has undoubtedly occurred at all periods, and in all countries of the world; but from the low intensity of the causation, the disease, except in epidemic seasons, has been confined to isolated cases. Aside from croup, that may owe this origin, many cases of scarlet fever have ended fatally on the appearance of the diphtheritic exudation. With these preliminary observations, I will now give the details of the most interesting cases that have fallen under my observation.—*Prof. E. N. Chapman.*

PAINLESS PARTURITION.

Dr. GEORGE SMITH, of Madras, communicated to the Obstetrical Society of Edinburgh the following example of this:

"Some years ago I was engaged to attend an English lady during her approaching confinement, and was startled one day by a hasty summous, coupled with the information that the child had been suddenly born without warning of any kind. On reaching my patient's residence, I found that the child had been born about ten minutes, and that it was still lying, with the umbilical cord uncut, close to the mother's body. The native female servant, at the lady's order, had left the child untouched, merely raising the bedclothes a little to permit the free access of air for the purpose of respiration.

"On inquiry, the lady informed me that she had been for some time expecting her confinement daily; that the previous night she had felt as usual; but that she had had occasion to rise frequently to attend upon her sick child, and that she had got up as usual about half-past five A. M., feeling well, and having no indication of the near approach of labor. Further, that during the forenoon she had walked down a long flight of steps, and across a gravelled walk to a smaller house within the enclosure of her own grounds, where, feeling a little tired, she had lain down upon a bed; that soon after she experienced slight discomfort, likened by her to ill-defined uneasiness of the abdomen under the operation of a mild laxative, followed by an impression that some solid warm body was lying in contact with her person; that she directed her servant to look below the bedclothes, and that the attendant, on doing so, found to her surprise the child entirely extruded.

"My patient assured me repeatedly and earnestly that she was quite unconscious of the whole parturient process culminating in the birth of the child, and expressed herself both surprised and alarmed at a delivery so painless and instantaneous. As she was daily, nay, hourly, expecting her delivery, it is but reasonable to suppose that she had been for some time acutely alive to the earliest intimations of commencing parturition, and it is surely remarkable that nothing occurred from which she could have suspected that the act had actually commenced. My patient had no object in deceiving me, and I am quite satisfied of the entire truthfulness of her often—to me—repeated statement.

"This case has a medico-legal significance, as well as a practical. If a female awake, in perfect health, in the exercise of

sound reason, and hourly expecting her confinement, having no object for its concealment, but many reasons for its occurrence, being welcomed by her friends, can be the subject of painless, unconscious labor, preceded by no appreciable premonitory symptoms, and making itself known only when the extrusion of the child has been completed in the way described, how much more may we be inclined to yield belief to cases in which it has been averred that delivery has taken place during sleep, without waking the mother, and to others, in which it has been maintained that owing to the painlessness of the parturient process, the child's life has been lost by a fall on the ground, or by being engulfed in a latrine? The child was a female, small, but not much undersized. The mother's first labor—this was the second—was a normal one, accompanied by the usual signs, and extending over six hours in its duration."

—— Dr. Pattison stated that he had once attended a primiparous patient who suffered no pain at all during labor. He had not been summoned to the case, but happened to call at the time; the child was born quite easily, the patient only experiencing a feeling of pressure.

Dr. Wilson had once been called to see a woman who had been delivered without any pain, whilst she was walking about in the house; and he found the child lying on the floor with the umbilical cord torn across.

Dr. Cochrane thought that such a case as that related by Dr. Smith might more readily occur in a warm country with a relaxing climate. But he had himself seen a woman who had just been delivered of a child almost unconsciously as she was getting out of bed.

Dr. Andrew Balfour stated that he had attended, when in China, the wife of an engineer on board a steamer, who suffered from remittent fever in the eighth month of her pregnancy. The whole ovum in that case was expelled entire without any warning; and when he (Dr. B.) arrived and ruptured the sac, the fœtus was already dead.

Dr. Pattison said Dr. Thatcher used to tell his class of a case where he found the patient had been delivered of an entire ovum with unruptured membranes. Dr. T. had been summoned by the husband, who was in great dismay, because, as he averred, his wife had given birth to a "leg of mutton."

Dr. Alex. R. Simpson stated that Von Ritgen, the venerable professor of midwifery at Giessen, had told him, that in a long course of his practice he had met with no less than sev-

enteen cases of labor where the patient had experienced none of the ordinary labor pains; and he (Professor Von Ritgen) had been led to form the conclusion that in perfectly natural labor, pain should not necessarily be experienced, and that we had come to regard pain as a natural and necessary concomitant of labor, merely because women were almost never in a perfectly healthy condition when we were summoned to aid them during parturition. He (Dr. A. R. S.) thought that if Professor Von Ritgen's position could be established—and the facilities of parturition among savages went far to prove its truth—then the objection sometimes made to the use of chloroform in labor, on the ground of its being contrary to nature, would be most completely done away with.—*Ed. Med. Journ., Nov.*, 1862.—*Cin. Lancet and Observer.*

ON THE EMPLOYMENT OF

MERCURY AND THE IODIDE OF POTASSIUM IN THE TREATMENT OF SYPHILIS.

By Dr. JUNIEN-LAVILLAUROY.

Having sketched in a bold style the history of the treatment of syphilis by mercury, having pointed out at what period of the disease, and against what symptoms mercurials may be useful, M. Junien-Lavillauroy sums up in his thesis the principal modes of the administration of mercury, and insists specially on the method of Montpellier, or that of radical cure. The first part ends with a table of the principal mercurial compounds, arranged in the order of their activity.

We know that M. Bouchardat divides the principal compounds of mercury into: 1st. *The soluble preparations.* Iodhydrargyrate of the iodide of potassium; bi-chloride (corrosive sublimate); and coanide of mercury.

2d. *Insoluble preparations.* The red oxide; the proto-chloride; proto-iodide; and metallic mercury.

This arrangement is admitted by all therapeutists, particularly by M. Trousseau.

The second part of this work is devoted to iodide of potas-

sium. The opinions advanced by the author are summed up in the following conclusions:

I. If, with the generality of physicians, we adopt the method of radical cure, or that of Montpellier, in the treatment of constitutional syphilis, the practice which consists in giving the iodide of potassium after the disappearance of the symptoms under mercurial treatment, is always useless and may often become injurious.

II. The mixed treatment is very energetic, and ought to be employed in the case of very obstinate and inveterate syphilis; but with the condition, that, if we wish for a durable cure, the mixed treatment must be continued a long time, or that after it the ordinary mercurial treatment should be continued for a certain period.

III. We understand the prompt and immediate treatment on the part of those physicians who do not believe in the preventive action of what they term anti-syphilitics; but from that moment they give them to anticipate new symptoms, according to the rules of the method of Montpellier (and, it must be remarked, all those who give the iodide of potassium after mercury, do it for this end), all these do the opposite to what they propose to do. They drive, in fact, the mercury from the economy, the specific which they have designedly accumulated in it, and to which they are proposing to add, perhaps injuriously, another specific, the iodide of potassium.

IV. The action of potassium on the compounds of mercury fixed in the economy explains the opinion that iodide of potassium does not act as an anti-syyhilitic in tertiary syphilis, except in those persons who have previously undergone a mercurial treatment.

V. The iodide of potassium may act not so much as iodide of potassium, as in transforming the mercury in the system into a more active compound, the iodhydrargyrate of iodide of potassium. So that there would seem in reality but one specific for syphilis, *mercury*.

VI. When in syphilitic patients symtoms appear a long time after mercurial treatment (and with much greater reason when it has not been employed at all), as we may suppose that there is no mercury left in the system, if we wish to treat the patient by iodide of potassium, in order to count upon its action, it is well to give at the same time a mercurial preparation; that is to say, to follow what Vidal de Cassis calls the mixed treatment.—*Boston Medical and Surgical Journal.*

PULTACEOUS EXUDATIONS AND FALSE MEMBRANES.

There is perhaps no error which is oftener committed in affections of the throat than that of mistaking the soft, whitish and caseiform exudations, which are observed on the tonsils and pharynx in a variety of diseases, for real false membrane. In scarlatina anginosa, for example, it is only exceptionally that these exudations assume the membraneous form; they are generally much softer, more easily indented, and much less adherent than the pseudo-membraneous patches of true diphtheria.

These distinctive characteristics, on which we have insisted since 1856, are properly noticed by Dr. Hillier, physician to the Hospital for Sick Children, in a recent clinical lecture on Scarlatina, published in the *Medical News and Library*. Describing the condition of the throat in that disease, he says:

"The *throat* exhibits at first a bright red color, with minute papular elevations on the soft palate; the tonsils, uvula, and soft palate usually become swollen, and in scarlatina anginosa, the color is more dusky, and patches of exudation are commonly seen on the tonsils of a dirty white, yellowish or ash color. The patches are soft, and may be readily detached with a blunt instrument; they are much less tenacious and adherent than the false membrane of diphtheria."

In cases of tonsils dependent on gastric disorders, whitish exudations, sometimes of considerable thickenss, but soft and caseiform, are observed. In applying the probang firmly to the parts, considerable portions adhere to it, and not unfrequently the whole mass is brought away. As long as the throat continues inflamed, and the cause of irritation is not corrected, the exudations may, after being removed, continue to reappear. These affections are not unfrequently attended with considerable tumefaction of the sub-maxillary glands; seldom, however, to as great a degree as is observed in diphtheria. In such cases, which are often mistaken for diphtheria, we have found emeto-cathartics sufficient.—*Pacific M. and S. Journal.*

BROMIDE OF AMMONIUM.

At the late meeting of the British Association for the Advancement of Science, held at Cambridge, a paper was read by Dr. Gibb, "On the Physiological Effects of the Bromide of Ammonium." He said that, "although not complete, his experiments were sufficiently positive in their results to justify him in bringing the subject before the Association."

This salt, he stated, had a tonic, sedative, or anti-spasmodic action, according to the quantity given and the mode of administration; and the structures affected by it were the skin and mucous membrane, and fatty compounds. In producing anæsthesia of the fauces, it was superior to the bromide of potassium, and possessed the power of diminishing fat in the economy, and influencing the arrest of atheromatous changes; and he thought it would ultimately be found of more value for the reduction of corpulency and allied states than any other substance at present known. It has been found to be very useful in some of the milder forms of skin disease, and of equal value with the bromide of potassium as an absorbent in glandular and other enlargements, and superior to it, in some respects, in the treatment of some other forms of disease. Dr. Gibb has also employed it in epilepsy with marked benefit, and also in cases of strumous ophthalmia in the young. Bromide of ammonium is a white prismatic salt, becoming yellow and slightly acid by exposure to air. It is very soluble in water, but only sparingly soluble in alcohol. It is composed of one atom each of bromine and ammonium.—*London Chemist and Circular—Drug. Circ.*

RESEARCHES ON THE

INFLUENCE OF CULINARY SALT AND COFFEE ON THE METAMORPHOSIS OF TISSUE.

Culnary salt, according to the researches of C. Voit, is a powerful stimulator of the metamorphosis of tissue; it increases, by means of its physical properties, the capillary circulation of fluids in the organism; it increases the oxidation of albumen, and through this the quantity of urea excreted. Culinary salt is also a true diuretic. In order to excrete the salt from the body, water is required; this water passes al-

ways through the kidneys (the only channel for the excretion of culinary salt in the dog,) and is, if the supply of water from without is limited, abstracted from the tissues.

Voit's experiments with *coffee* on a dog led to the inference that coffee does not, as is usually assumed, diminish the metamorphosis of nitrogenous tissue, and the excretion of urea, but, on the contrary, rather increases these processes. On the whole, the dog appeared to be more lively after the use of coffee. The author made also experiments with *caffein* on frogs, and found it to cause, at first, increased irritability of the nervous system, a tendency to reflex-movements and to tetanic convulsions; later, however, phenomena of paralysis. The pupil becomes dilated; the capillary vessels are filled with blood; the heart's contractions are at first increased, later reduced in frequency, they are arrested during the tetanic paroxysms. The author attributes the principal effects of coffee to its action on the nervous system, not to its influence on the tissue-change. The nervous system being rendered more susceptible, the same exciting cause produces a greater effect. Coffee thus refreshes, Voit thinks, the fatigued body, renders the lassitude less perceptible, and in this manner enables us to endure prolonged exertions. The experiments on the influence of *bodily exercise* (tread-wheel) on the tissue-change in the well-known dog lead to the unexpected result, that the excretion of urea was not at all, or only very slightly, increased by bodily labor. Voit infers, therefore, that muscular action does not cause increased decomposition of albuminous substances, while it is accompanied with a greater consumption of fat. As the decomposition of albumen is not the source of the production of force, connected with muscular contraction, Voit is inclined to look for it in the development of electricity.—*Brit. and For. Med. and Surg. Jour.—Drug Circ.*

FORCES OF THE LIVING ORGANISM.

In the course of an able address on physiology before the British Medical Association, Dr. W. Sharpley made (*Med. Times and Gazette*) the following comprehensive remarks upon this subject: "And now, gentlemen, in drawing to a close, I may be expected to say a word on the prevailing views as to the powers which animate the living organism.

"I have already remarked that many of the processes of the living economy issue in physical or chemical results, and I have stated that the more or less close relation subsisting between these results, so far as they can be estimated, and the consumption and oxidation of nutriment, as indicated in respiration and excretion, would seem to show that the chemical and mechanical forces developed are derived from an extrinsic source; but, at the same time, that there are energies displayed in the living body not yet estimated in amount, concerning which, therefore, there is not the same clear evidence. I refer especially to the nervous energy.

"In speaking, however, of the nerve force I understand that force which is common to all creatures possessing a nervous system, from the highest to the lowest. I do not refer to the highest attributes of man, to his sense of moral responsibility, his consciousness of dependence on a higher power, and his aspiration after perfection in a future state.

"This nervous force has long been likened to electricity; but rather through a vague perception of anology than from any rigorous comparison. It is true that electric force is developed in the nerves, and even exhibits modifications connected with different conditions of nervous action. Still, it must be borne in mind that the evolution of electricity is a common accompaniment of various processes, involving chemical change, whether within the body or in external nature; and the tendency of recest speculation is not toward identification of the nerve force with electricity, but rather to suggest that the two stand related in the same way as electricity and other physical forces are related to each other; that is, as manifestations of a common force or energy, of which they, severally, are the special modifications.

"Since the memorable experiments of Count Rumford on the heat of friction, which led that philosopher to the conclusion that heat is a form of motion, and the determination by Dr. Joule at a later period, of the equivalent of heat expressed in mechanical work, the doctrine of commutability and equivalence of force, first applied to these two agencies, has extended itself to the other forces operating in the material universe. Accordingly, the opinion is now gaining consistency and acceptance, that mechanical energy, heat, light, chemical action, electricity, and magnetism, are mutually convertible, and are respectively equivalent to each other; moreover, that they are probably all the expression of a common force which manifests itself under these several modifications, according

to the different material or dynamic conditions in which it operates.

"Now, the belief has some time prevailed that the nervous, with perhaps other forms of organic energy, has its place in the same circle of reciprocally productive and equivalent forces; and not being electricity more than it is heat or chemical affinity, yet stands related to electricity and the other forces in the same way that they are related to each other.

"But supposing this probable doctrine to be proved and to betoken a signal advance in physiology, are we come to the end of our inquiries? are we thereby enabled to explain even the most characteristic phenomena of the living organism?

"By mechanical force duly applied, a fabric may be woven, as well, or perhaps better, than by human hands; but by what intelligent prearrangement is the pattern determined and finally brought out? So in the production and development of an animal, and in its subsequent workings,—given the force or forces operating,—how are the determinate forms and qualities of organism produced?

"To all our most exquisite means of scrutiny, the ovum, as it proceeds from the parent, presents nothing to indicate the course of its future development; and yet we speedily can discern in it the traces of the new being, and recognize the successive appearance of each new member and organ—in due time and form and proportion—until the body is built up and completed after the pattern of the parent. We can perceive nothing in the ovum of man to distinguish it from that of a quadruped, although their final destination is so different. We are constrained, therefore, to admit some pre-existent condition, to us inscrutable, which determine the specific direction in which the forces, acting in development, although probably supplied from without, must operate within the organism. And the marvel reaches its height when we reflect, that not the character of the species merely, but the individual likeness of the parent—aye, of both parents—displays itself in the offspring; and not alone in bodily feature, but often also in intellectual and moral peculiarities.

"Then, not alone in regulated form and proportion, do the parts appear, but all fitting harmoniously the one to the other, and each in its appointed time. The periods of incubation and gestation, different but determinate in each species; the regulated time of consolidation and completion of the bones of the skeleton; of the eruption and succession of the teeth; the periods of maturity and decline of the whole body and of particular organs; and a host of examples supplied by the

history of the lower member of the creation, serve to illustrate that conspicuous law of subordination to time in the phenomena of the organic world, which Mr. Paget has aptly designated as the 'chronometry of life."

"Now, while we can in many cases discern the purpose of these adaptations of form, proportion, and time, and perceive how they, as it were, fit in with, although not apparently produced by, the outward circumstances in which the organism is placed; and while we must revere the infinite wisdom by which they are harmoniously brought about, we are still utterly at a loss to explain them by reference to efficient causes. In some of the lowest tribes of animals, it is true, the results are affected more or less by physical influences, but these influences operate upon internal conditions, existing independently. In the human body, even, you may cramp the growth of a Chinese foot or flatten a Carib skull, but this is suppression or distortion, not formation.

"The growth of a finger or a tooth may be traced, and various steps in the process explained; but the acquirement by these and other parts, and indeed by the entire body, of their characteristic form and proportion, is still an inscrutable, at least an unpenetrated mystery. Unpenetrated, I mean, as regards the physical or efficient causes of the phenomena; for the purpose or final cause is often patent; and hence we see that teleogical explanation holds, and doubtless must continue to hold, a large place in physiology.

"But, finally, shall we, on that account, censure as rash or stigmatize as impious all attempts to go farther? Shall we presumptuously set limits to the scope of those inquiring faculties which God has conferred on man, or prejudge and reject by anticipation, conclusions to which their rational and reverential exercise may lead? Assuredly not. Let us not, therefore, with narrow views of the scheme of Providence, worthy of a darker age, join in blindly denouncing the genial effort of one of the foremost men of science in our time, to refer mutations of organic form and the origin of species to natural causes of known operation. Faint as some may deem the prospect of success of Mr. Darwin's great attempt, let none condemn its tendency. Should it ever be shown that the wonderful adaptation and harmonious working, so conspicuous in the living creation, have been brought about by the operation of great natural causes, originally ordained by the Author of the universe, and acting through countless ages of time, surely such an issue could but tend to enlighten and exalt our conceptions of creative wisdom.—*Drug. Circ.*

TREATMENT OF JOINT DISEASES.

H. G. Davis, M. D., of New York, concludes an essay on Treatment of Joint Diseases with the following:

First.—That in all diseases exterior to the joint, when of sufficient gravity to render the same functionally immovable, and when continued for any length of time, the cartilages should be relieved from pressure by extension.

Secondly.—When the disease is within the capsular ligament, extension should be applied from the commencement, as the destruction of the cartilage will be in proportion to the activity of the inflammatory process.

Thirdly.—In immobility of the joints, from whetever cause, change of position of the articulating surfaces must be frequent, or extension applied. This extension should always be made by means of a cord, pulley, and weight, or by some *elastic* material, *the result of both being that a certain amount of extension is kept up, whatever may be the position of the limb.*

This is never fully accomplished by fixing a limb in a given position, as by the ordinary splint, with its so-called extension. When extension is made by an elastic material the muscular fibre becomes wearied, the nervous influence is expended, and the bones come down until the extending power is exerted entirely upon the unyielding tissues. There is, practically, a radical distinction between fixing a limb as by the old mode of extension, and that by which an unremitting draft is kept up upon the muscles, and yet the limb is not so fixed but that the muscles may contract and thereby exhaust their nervous influence, and ultimately rest like any muscle wearied from exercise.

Previous to my introducing it, I have never seen elastic extension recommended, except by one author, and he advised it simply for the purpose of preventing surgical apparatus in fractures from loosening, and not for the reason for which I use it, viz., for overcoming muscular contraction.

It will not be amiss to state what application of the principle of what I term "continued elastic extension," I have made, and with what results.

In ulcerations of the intervertebral cartilages and of the bodies of the vertebræ, I have devised apparatus that separates the diseased vertebræ from each other, and impoess the

labor of sustaining the weight perpendicularly upon the lateral processes. Here it can rest until the disease stops, and the cavity is filled by bone. With this treatment restoration takes place with a good figure.

For morbus coxarius I have originated the treatment by appropriate splints, with which most of the members of the Academy are acquainted. The management of hip disease, based upon this principle, relieves entirely the suffering, puts the parts in the best condition for perfect restoration, and even if the disease is not checked, the limb is kept at full length and in a correct position.

Affections of the knee I treat in a similar manner and with the same success. I have devised an apparatus that will keep up extension upon this joint, and yet admit of flexion of the limb, the whole weighing but a few ounces.

The principle of the latter apparatus is also made applicable to the elbow and other joints.

SCARLATINA AND THE PUERPERAL STATE.

Every epidemic of scarlatina is accompanied by an increased number of abortions and premature deliveries.

The appearance of scarlet fever during child-bed is a dangerous complication, on account of this specific relation of the contagion to the womb. Halm described, in 1837, the scarlatina puerperalis as differing from scarlet fever in not being contagious, appearing within three or four days after delivery, frequently not affecting the mucous membranes at all, and showing no regularity in regard to the fever and eruption. The fever comes suddenly, with a well-marked chill, and a very quick, full, hard pulse. Slight pains in the womb disappear with the coming eruption, which usually covers rapidly the greater part of the body, frequently on the second day of sickness, without mitigation of the fever. This disappears, in favorable cases, with eruption on the third or fourth day, when desquamation follows immediately. Without any apparent cause, this may result in peritonitis, splenitis, dropsy,

or pleuritis, with extensive exudation. Where no desquamation takes place, the fever goes on and mania supervenes, soon ending in death. Headache during the eruption, and pleuritis and peritonitis subsequently, are very unfavorable symptoms. The treatment must be antiphlogistic, with small doses of calomel. Ablutions with warm water, mineral acids, cold applications, leeches, according to circumstances.—*A. Clemens.—Am. Monthly, Trans.*

PHYSICAL DISEASE IN INSANITY.

In every disease of the mind, mental phenomena must necessarily have physiological facts for their basis, and even as a condition of their existence. What symptoms are we, then, obliged to find and describe in the so-called moral insanity, or diastrephia? I answer—both moral and physical: the first relating to a perversion of the human will and instincts; the second, the somatical facts, the symptoms perceptible to our senses. These points settled, all the other evidences support, always, the fundamental inquiries. Out of that, physicians do not want to venture in vague theories; and for them, *what is not disease in diastrephia is crime.—Parigot.*

Ovariotomy in London.—Ovaritomy seems to be prevailing epidemically in London. The number of the *Lancet* for Dec. 20th last, contains notices of 75 cases of this operation. Of these, 43 are said to have recovered and 26 were fatal; in three cases the operation was commenced but not completed, and in three an exploratory incision was made in aid of diagnosis, in one with a fatal result.

In connection with this subject we must not omit to notice the *modesty* of the editor of the *Lancet*, who, in an editorial in the number just quoted, claims Ovariotomy as *a triumph of British Surgery!* He observes: "This noble operation —for the saving of 50 per cent. of poor creatures from absolutely impending death surely deserves the epithet—is essentially a triumph of British Surgery."—*Med. News.*

ORIGINAL COMMUNICATIONS.

RESECTIONS—MILITARY SURGERY.

By MORD. BROOKS, Asst. Surg. 82d Regt. Ind. Vols

At the General Field Hospital, shortly after the battle of Stone River, I happened to be a "looker on in Venice," when an incident like the following occurred:

A certain surgeon, who enjoyed the confidence of the Medical Director of the Department, and doubtless deserved it, had received permission to select such cases for operation as he might think of peculiar interest or difficulty.

A patient was placed on the table: it was a case of gunshot fracture of the Tibia The ball—a conical musket ball—had taken effect at the anterior aspect of the bone, about its lower third. On examination, our surgeon decided that it was a case for resection; at which time, the surgeon of the regiment to which the patient belonged appeared, and objected. The Brigade Surgeon was counseled: he said there might be some small spiculæ of bone which *should* be removed without enlarging the wound. Our surgeon declared it was necessary to enlarge it an inch each way. On appealing to the Medical Director the surgeon was ordered to proceed on his own judgment. The wound was enlarged and about fifty fragments of bone were taken out, one piece as large as the index finger. The operation was an enlightener to some concerned.

Being myself detailed at the same time as an assistant at one of the field hospitals, I was reminded by this circumstance to give more attention to the subject of resection.

A case recurs to my mind, which further illustrates what appears to me to be a fact, that army surgeons in general are not aware of the great amount of comminution that almost in-

variably attends these fractures, when made by the Minie ball.

This patient, like the one preceding, had received a gunshot fracture of the Tibia. The wound was examined and dressed by intelligent surgeons. Resection was not deemed advisable; it being supposed that there was not comminution sufficient to warrant its propriety.

Gangrene supervening about the fifteenth day, amputation was performed. On examining the limb, I was astonished at what was presented. It seemed more like a case of crushing. A number of spiculæ and several large pieces of bone were detached, and the shaft of the Tibia was split down to the Tarsal articulation.

Examination of the limb, after amputation, in another case of a similar character, revealed the same condition.

Whether even resection would have saved the limbs of these men or not, is an interesting question, that cannot, positively, be answered in the affirmative. I think, however, it would be in one instance. One thing I am certain of, they are a sample of a large number of cases in which secondary amputation has been necessary, and, in most instances, death the result.

On the whole, I am inclined to the opinion, that a gunshot fracture of limb, should almost in no instance be bound up without resection.

Microscopical Examination of the Air.—A series of experiments, originated by M. Revial at the Hospital Lariboisiere has shown the experience of a large amount of organic matter floating in the air. The dust collected from one of the wards contained thirty-six per cent., chiefly composing epithelial cells exhaling the smell of calcined horn or bone. In the air of those rooms where there are sufferers from contagious inflammation of the eyeball, small corpuscles were detached by the microscope, analogous to the virus thrown off by the inflamed eye. It is, therefore, to be assumed, on evidence strictly logical, if not absolute, that the infection is mechanically conveyed by the air.

EDITORIAL AND MISCELLANEOUS.

The American Medical Association.—In the March number of the Chicago Medical Journal, Prof. D. Brainard, over his initials, gave certain reasons why, in his opinion, the meeting of the American Medical Association, called by the Chairman of the Committee of Arrangements, for the first Tuesday of the ensuing June, in this city, ought not to take place. Those reasons were prominently as follows:

The call emanated from but a fraction (if, indeed, from more than one member) of the Committee of Arrangements, against the known views of the remainder of the Committee.

There had been no generally expressed wish of the profession throughout the country for its re-assemblage the present year. The causes which, for the two previous years, had been deemed amply sufficient for the postponement were, and are, still present.

The time appointed is unfortunate, because on the same day the great Canal Convention is to convene in this city.

In the February number of the journal which he controls, the Chairman of the Committee uses the following language:

"Let no one outside of Chicago imagine that the course taken by the Chicago *Medical Journal* and its senior editor, Professor D. Brainard, in opposing the meeting of the Association, indicates any division of sentiment, or action in the Profession here, or that it represents the wishes or feelings of any one here but himself. On the contrary, the Profession here are united, and earnestly preparing to give their brethren as cordial and pleasant a reception as they have met with in any other city in our country. Our hotels are of the best character, and amply sufficient to accommodate half a dozen "Canal Conventions" and medical Associations at the same time."

The Chairman of the Committee does not attempt to controvert any of the positions taken by Prof. Brainard with the exception of the last—for the simple reason that they are wholly incontrovertible. The call was unauthorized, and if any sustain the Chairman in the course he has thought proper to take now, it is only because they believe that the mischief is already done, and all that remains is "to make the best of it." But there is a difference of opinion from which there is no escape. The large majority of the profession are totally opposed, for patriotic and practical reasons, to the convening of the Association at this time.

With regard to the hotels and the Canal Convention—although Chicago has numerous, and some magnificent, hotels, it is well known to our public, that these hotels, without any extraordinary gathering, are even now taxed to the verge of their capacity by their daily arrivals alone.

It is believed by our citizens, that this one only of the "half dozen Canal Conventions" will bring to the city a larger concourse than it has ever before known. The private residences of the city must be turned into caravanseries to accommodate the throng. The hotels will not be able to shelter a tithe of the visitors.

It may be remarked, that at the Canal Convention will be present a large number of the most prominent men in civil life—many of the most eloquent orators in the nation are to speak; and he knows but little of human nature, who thinks that any attractions for attendance which the Association can present will outweigh those which will call away very many who come to Chicago nominally to be present at its meetings.

The Nitrogen of Food.—Profs. Bischoff, Fehling and Pettenkofer, of Munich, have latterly been engaged in an elaborate series of experiments with regard to the changes undergone by food in digestion. The composition of the food given being first accurately ascertained and then the entire products

of respiration and excretion carefully collected and analyzed, the result was a general confirmation of the following views:

1st. That the nitrogenous portions of the food went to repair the continuous waste of the nitrogenous tissue of the body which takes place during the performance of its various functions; and that urea was the form under which the metamorphosed or worn-out nitrogenous tissues were chiefly eliminated from the system.

2d. That when an excess of nitrogenous matter was supplied in the food, more than was sufficient to repair the waste of tissue, that excess had the effect of producing a more rapid formation and subsequent breaking up of tissue, and consequently increasing the amount of urea eliminated in a given time; but that the increased quantity of urea occuring in the urinary secretion was not due to the excess of nitrogenous matter being converted directly into that substance, as some have supposed, but that its constituents first formed a portion of the tissues which, by their subsequent metamorphosis, furnished urea.

3d. Their experiments also showed that little or no nitrogen passed off with the fæces, or with the product of respiration, but that almost the whole evolved was contained in the urinary secretion.

Precocious Pregnancy and Parturition.—From the Registration Report to the Mass. Legislature, 1858, by Dr. Josiah Curtis, it appears that a girl of ten years, eight months and seven days was delivered of a healthy child at the full time of pregnancy. She became pregnant twenty-four days before she was ten years old. The reputed father was about fifteen years of age. The dates are accurately fixed by the official record of the town of Taunton, Mass., and by the direct testimony of Dr. Alfred Baylies of that town, who officiated both at the birth of mother and that of the child. Both mother and child are at the present time in good health and thriving. This is probably the *earliest* specimen of fecundity of which there is any reliable record.

Thoracentesis.—Cases are accumulating proving the great advantage to be derived from early employment of thoracen-

tesis in cases of pleural effusion. N. W. Greene, M. D., of Pittsfield, Mass., in a report of several cases operated upon, remarks that his rule is, "whenever a case of pleuritic effusion does not yield readily and rapidly to medical treatment, operate." He has never seen any cause for regret, except in some cases, that it was not done earlier. As before intimated in this Journal, we endorse the rule in its broadest extent.

Facial Neuralgia.—Prompt and effectual relief is said to be often afforded by exhibition of the following mixture:

℞ Ammoniæ Hydrochlor, ʒj; Ext. Belladonna, gr. j; Syrup. Simp. f ʒij. M.—S. A teaspoonful every fifteen minutes during the paroxysm, until the pain diminishes, which is usually after four or five doses.—*Dental Cosmos.*

Tooth Powder.—We find the following formula in the same journal:

℞ Pulv. Peruvian Bark, ℔ 1; Castile Soap, Cinnamon, *aa* ℔ 1½; Orris, ℔ 1¼; Chalk, White Sugar, ℔ 2½; Cuttle-Fish (or Pumice), ℔ 2; Oil of Wintergreen, f ʒj. Thoroughly mix in impalpable power. It is recommended to patients to use this at least once a day and brush the teeth longitudinally as well as crosswise, taking care that the grinding and lingual surfaces be not neglected. The suds formed in the mouth should be passed back and forth between the teeth, to bring it in contact with any acid which may exist there.

Ovariotomy.—Prof. E. R. Peaslee in a case of double Ovariotomy (Aug. 1862) made use, commencing upon the nineteenth day after the operation, when typhoid symptoms were imminent, of free injections into the peritoneal cavity, feeling sure that the symptoms were due to the presence of decomposing fluids. He first injected a quart of artificial serum, made by dissolving albumen with a little common salt in water, at the temperature of 98° (Fahren.) A syringe, fastened to a flexible tube, so that on removing the syringe

and depressing the external portion of the tube a syphon would be formed through which the fluid would drain off. The injections were repeated from one to three times daily for the next *fifty-eight days*. The twenty-seventh day he substituted for the albuminous solution: ℞ Liqr. Sodæ Chlorinatæ, ss ʒj; Sodii Chlorid, ʒj; Aquae, Oj. M. The change proved highly advantageous. Prof. P. attributes the favorable ultimate result of the case to the persistent use of the injections.

Ovarian Dropsy—Iodine Injections.—D. G. Thomas, M. D., of Utica, N. Y., reports to the *Am. Jour.* a successful case of treatment of Ovarian Dropsy by Iodine injections into the cyst. Four ounces of fluid at blood heat, containing 16 grs. Iodine and 60 of Iod. of Pot., were thrown in from a glass syringe, care being taken that it should be brought in contact with every part of the sac, and it was then withdrawn by the syringe. Considerable pain and faintness was experienced at first, but soon subsided. The operation was but partially successful. Four months after it was repeated. Injected 48 grs. Iodine, 180 grs. Iod. Pot. in 8 oz. of water at blood heat. Patient had taken 30 drops of McMunn's Elixir 45 minutes before the operation to dimish the force of the shock. Much less suffering resulted.

When last seen, about six months after this operation, "she called herself well, could walk with ease three or four miles. Has gained in flesh; the size of the bowels was natural, and the walls or outline of the collapsed sac could be easily traced through the abdominal parietes."

Varicose Veins.—Dr. S. P. Turner reports several cases of successful treatment of varicose veins by means of local inflammatory action produced by a paste of Tart. Antimony and Croton Oil. The cuticle is first removed by vesication with Cantharides over a varying number of points, say from six to twelve. Tartar Emetic is then rubbed with Croton Oil to the

consistency of a paste and applied by means of a probe on the denuded surface. In from thirty-six to forty-eight hours the points of application will each be marked by an umbilicated pustule, which may then be treated by warm water dressings. On the occurrence of sloughing, granulation of the ulcers will speedily occur, and the cicatrization diminish the calibre of the vein. Vesication at the outset renders the process more speedy. The recumbent position is the most favorable to success.

In superficial and not very chronic cases this will prove as useful as the twisted suture or Vienna paste, whilst it possesses the advantage of being available in almost every instance of varicose enlargement of the superficial veins of the lower extremities.

Gonorrhœal Rheumatism.—In the chronic thickening, pain and stiffness which sometimes remain after gonorrhœal rheumatism, Mr. Fuller recommends, in otherwise healthy subjects, omission of internal remedies—the cold douche to the parts daily for ten minutes or more, followed by drying and brisk friction until the warmth has returned. Then envelop the parts in lint steeped in the following lotion: ℞ Comp. Tinct. Iodine, ℥ ss; Glycerine, ℥ iiss; Aq., ℥ iij. M. The lint to be covered with flannel and kept on until the next daily douche and friction. In a few days the difficulty will generally disappear. Where the knees are affected, the structures around being thickened and effusion into the synovial cavity, he employs the same treatment, only substituting a moderately firm bandage for the flannel over the lint. Mr. Fuller thinks the ordinary method of applying the Comp. Tinct. Iodine faulty, as it can exert no distinctly absorbant influence—its local action proving a bar to its further absorption. The formula above given contains as much iodine as the skin will bear without suffering, and the glycerine saves wetting the part oftener than once in twenty-four hours.

Burns.—A correspondent of the London *Lancet*, recommends in burns the following preparotion : "Take chalk and linseed, or common olive oil, and mix them in such proportions as will produce a compound as thick as thin honey; then add vinegar, so as to reduce it to the thickness of treacle; apply with a soft brush or feather, and renew the application from time to time." Or, what appears to be a better plan : spread the paste over pieces of rag. These may be changed from time to time, if the pain return, exposing the parts, of course, to the air as little as possible. The writer thinks the Carbonic Acid set free by the mixture, in addition to the exclusion of the air, adds materially to the sedative effect. In the absence of oil, he suggests the whiting might be mixed with water.

Medical Officers to the Prince of Wales.—Physicians in Ordinary—Wm. Jenner, M. D., and Edward Sieveking, M. D. Surgeons in Ordinary—James Paget and George Pollock, Esqs. Surgeon Extraordinary—John Mintor, M. D., etc. Hon. Physicians—Thos. King Chambers, M. D.; Wm. Henry Acland, M. D.; and Alex. Armstrong, M. D., R. N.

In this list will be recognized names which the profession, as well as royalty, delight to honor.

Operation for Hæmorrhoids.—Henry Smith, Esq., Surgeon to King's College Hospital, has contrived a modification of Mr. Curling's clamp for holding piles during the operation of removal or the application of nitric acid. Mr. Smith substitutes in the blades a longitudinal groove and mortice, instead of the serrations used by Mr. Curling. The handles are also stiffened and controlled by small but light screws, so that the pressure may be regulated at will, thus enabling the operator to control any hæmorrhage which may occur by farther application of nitric acid, or of the actual cautery if necessary. As the operation by ligature, although usually admirable in results, is not without danger to life, this improvement may be considered a useful and important one.

Hay Asthma.—Ten drops of Tincture of Nux Vomica three times a day, is recommended by a recent writer, in hay asthma. The remedy may be continued for several days without apprehension or annoyance to the patient.

Substitutes for Bismuth.—The Oxychloride, Phosphate and Tannate of Tin are severally suggested as substitutes for Bismuth. The basic per nitrate of iron and the basic phosphate of iron in combination with phosphate of lime are also suggested. They may replace the Bismuth for injections, blenorrhœa and blenorrhagia, in the early stages.

It is not stated whether they will in any degree replace Bismuth for internal exhibition. We suspect not.

Ext. Hæmatoxylon as a Deodorizer.—Extract of Logwood mixed with equal parts of lard, is recommended by M. Desmartier as a deodorizer, applied to sloughing and gangrenous wounds. It, at the same time, he states, assists in restoring healthy action.

Pertussis.—Common Resin in doses, for a child, of one or two grains, and for an adult, of five or six grains, is recommended by an Australian writer as a specific for whooping cough. He often combines it with Opium or Belladonna. The remedy has the advantage of being little liable to do mischief.

Administration of Quinine.—The bitter taste of Quinine is easily concealed by putting the powder to be exhibited on a portion of the white of an egg and covering it with another portion. In this manner children, or the most "spleeny" adults will swallow it readily.

Necrosis.—Mr. Wormald, Surgeon to the St. Bartholomew's Hospital, suggests that the disintegration of dead bone is ac-

complished by chemical agencies. When pus is first secreted in Necrosis it is alkaline, but presently it becomes acid, and may, in some cases, be seen exuding through minute apertures which gradually enlarge, and the surface of the dead bone becomes rough. Litmus paper will detect this acid. The acid is supposed to be phosphoric—this dissolves the bone, and the air bubbles resulting may be seen on the surface of the pus. It is suggested that in doubtful cases of Necrosis, the presence of phosphoric acid may prove valuable in diagnosis; and in cases where dead bone cannot be removed by operation, Nature seems to indicate an appropriate remedy.

Dropsy—Turkisk Bath.—Dr. Thudichum, at a meeting of of the London Medical Society, strongly recommended the use of the Turkish bath in dropsies, where diuretics and the other usual measures fail to accomplish the desired effects. In many cases, he states, a properly constructed, well arranged, and properly heated bath of this kind was the only agent which, with certainty, would keep down the dropsy, and make the continuance of life possible. It ought always to be used in connection with the appropriate medical adjuvants. It is best adapted to cases dependent on cardiac or renal disease. When persons sweated well, the dry, hot bath for a shorter time was preferable to a longer sojourn in a lower temperature. The patients never took cold after it, and were better protected against chills than by fleecy hosiery.

Syphilis.—In the home British army one-third of the admissions into the hospitals in 1860 were on account of Syphilis, and according to the London *Times*, they exceeded one-half the average strength of the army. The disease caused a loss in the course of the year to the army at home equal to 8.69 days of the service of every soldier.

B. R. Biddle, U. S. Indian Agent in Oregon, states that with few exceptions, the Indians in his agency have the most loathsome "private diseases,"—and from this cause alone, he

is led to believe that "in less than twenty-five years, these Indians will have nearly become extinct."

Ice Cream Topically.—C. P. Hart, M. D., reports to the Cincinnati *News*, a severe case of chronic dyspepsia relieved entirely by exhibition of ice cream without any other medication. The patient was ordered to take a teaspoonful of ice cream every few minutes during the day, and to allow it to dissolve slowly in the mouth before swallowing it, and to admit nothing else to the stomach while the treatment continued, either in the shape of food, drink, or medicine. In five weeks he was well, and returned gradually to his ordinary diet without any return of the gastric disorder. Dr. H. has also employed the same treatment in various inflammatory affections of the throat and stomach with the happiest results.

Certainly a combination of the *utile cum dulce.*

Dyspepsia—Rennet Wine.—The ordinary pepsine of the shops is wholly inert. If it is desired to administer this agent it may readily be prepared by taking the stomach of a calf, fresh from the butcher, "cut off about three or four inches from the upper, or cardiac extremity, which contain few glandular follicles may be thrown away. Slit up the stomach longitudinally; wipe it gently with a dry napkin, taking care to remove as little of the clean mucus as possible. Then cut it into small pieces (the smaller the better), and put all into a common wine bottle. Fill up the bottle with good sherry, and let it remain corked for three weeks; at the end of this time it is fit for use. Dose—One teaspoonful in a wine glassful of water immediately after meals."

Wouldn't a little more of the wine, without the rennet answer a better purpose?

Phthisis.—Dr. McCormac, of Belfast, insists that consumption is the sole product of respiration of air which has already been respired. The insufficient discharge of carbonaceous

waste leads to its accumulation in the blood, and final deposit, in the form of tubercle, in the living tissue; and this foreign body is incompatible with the continuance of healthy life. "The one and only cause of consumption and scrofula, is breathing over and over the same breath. The one and only preventive is not to breathe afresh one's own breath or the breath of others." "Impurity of the atmosphere, say as generated by putrefaction, is not productive of consumption. It is only the atmospheric impurity which arises from the act of respiration which is so."

He believes that the ravages of consumption may be entirely put a stop to by conforming to the laws of the organism he thus has indicated.

The views of Dr. Bowditch, to which we called attention some months since, will illustrate, with these of Dr. McCormac, the errors to which the best minds are liable when they seek in single causes the result of a concurrence of causes. Dr. McCormac refers everything to the effects of repeated respiration of the same air—Dr. Bowditch to certain hygrometric conditions of the locality. It would be just as easy—easier, indeed, to refer to the kind of food taken—just as easy to refer to the condition of the digestive organs.

But the fact remains—consumption is not brought about by any single cause, but by a concurrence of causes, each of which must be thoroughly investigated in each case.

Cannabis Indica—Chronic Diarrhœa.—Dr. T. L. Wright, of Bellefontaine, Ohio, recommends, through the *Lancet and Observer*, two grain doses of Cannabis Indica in camp or chronic diarrhœa, where opium and other remedies only partially succeed. This remedy, he says, under these circumstances, he has never known fail to ameliorate the condition of the patient. He sometimes combines it with quinine, opium, or acet. plumbi. It is adapted to the later stages of

the disease. Care should be exercised against its development of the *cumulative* effect. He attributes its beneficial effect to its direct strengthening influence upon the nerves.

Cider in Erysipelas, &c.—Dr. A. McBride, in the same journal, recommends good sound cider to erysipelatous patients "as often as they would drink it." He remarks that he also gives the same to his pneumonia and fever patients. Where it cannot be obtained, he recommends vinegar and water, sour wines, fruits, &c. The practice is strongly urged upon the Sanitary Commission. It is well adapted to remove the cutaneous tinge of icteric patients.

Ghosts.—The *London Lancet* says that Mr. Pepper is lecturing at the Polytechnic Institute, and displays an ingenious contrivance whereby any amount of very highly finished ghosts may be furnished to order. These are raised by the aid of a strong light, a mirror, a few lenses and some smoke. This will recall the arrangement of the French *savant* which so startled the not over bold King Louis, and led to the disgrace of both optics and the optician at the Tuilleries. From that scrap of history, it is prognosticated, that the overthrow of the popular belief in ghosts and hobgoblins, fondly anticipated by the *Lancet*, as one of the results of Mr. Pepper's expositions, though a consummation devoutly to be wished, is not yet on the eve of accomplishment.

Canada Lancet—William Edward Bowman, M. D., Editor, Montreal.—This is a monthly journal, and is published at one dollar *per annum* in advance. All communications are to be addressed to the Editor, McGill St., Montreal. We cheerfully place this new candidate for professional favor on our exchange list, and invoke for it the liberal patronage of our Canadian neighbors. Canada ought certainly to sustain at least one journal liberally. And we beg leave to remark, right here, that by sustaining a medical journal we mean to include *the*

use of the pen as well as the forwarding of subscriptions. If the profession wish a live medical journal among them, they should feel an individual responsibility in furnishing original communications. We trust our new *confrere* will find an abundance of able contributors, to relieve the otherwise arduous and thankless labors of the editorial position.

Inoculation in Intermittent.—All Western practitioners have noticed on the decline or interruption of intermittents and remittents, that patients are not unfrequently affected with what are popularly designated as "cold sores," a variety of *Herpes labialis.* In "malarious districts" this is called "a receipt for the ague," as it is generally believed to indicate cure of the original affection. E. Lynch, M. D., of Lancaster, Ohio, (Philadelphia *Reporter*,) in a case of obstinate intermittent disorder, tried the experiment of inoculating with matter from some of these pustules in the usual form. Six days after the inoculation the patient had an eruption on various parts of the body, after which there was only one slight return of the intermittent symptoms. From the results in this case, Dr. L. suggests further experiments to ascertain whether by this method susceptibility to the distressing effects of "malaria" may not be eradicated.

The objection will at once occur to Western practitioners that patients who have had this labial eruption "the natural way," seem fully as liable to recurrence of the paroxysms, as do those who have escaped without this disagreeable sequel to previous paroxysms. In our experience we have been led to believe that the occurrence of the labial eruption more commonly indicates that the patient had taken an insufficient amount of Quina to arrest the intermittent. Some patients are especially liable to this eruption every time they have intermittent, and to these we have learned to administer doses of Quina much more abundant than those usually found necessary. We suggest that in Dr. Lynch's case the strong impression made upon the mind of the patient had much to

do with the favorable result. It is to be regretted that the Dr. did not describe the character of the eruption which appeared on the sixth day. Was it not simple urticaria?

Sub-Involution of the Uterus after Parturition.—Dr. A. P. Dutcher (Philadelphia *Reporter*) calls attention to the increased frequency of cases of hypertrophy, or sub involution of the uterus, after parturition or abortion. He attributes this to "our artificial state of society, and the increasing facilities for producing criminal abortion." When a woman has once miscarried or aborted, it is well known that she is very liable to the same accident, at the same period of the next pregnancy. It is also a remarkable fact, that such women often become pregnant again in a very short time after the occurrence of the miscarriage. This condition of affairs interferes materially with the proper restoration of the uterus to its normal state by involution, and thus it is apt to become permanently hypertrophied, producing the various unpleasant general and local symptoms which characterize such cases. The hypertrophy is readily to be recognized by the usual methods, provided it is present and *sought for*. The symptoms are too often mistaken for those of hysteria, and what is worse, unfortunately, sometimes for (that pack-horse loaded with female suffering) ulceration of the *os uteri*.

To promote complete involution of the organ and restoration of the normal functions, Dr. Dutcher especially recommends a combination of bi-chloride of mercury and muriate of ammonia, viz: ℞. Hydrarg. Bi-Chlorid. gr. j; Ammoniæ Hydrochlor., ʒij; Aq. Font., fʒij. M. S.—A teaspoonful three times a day in a teacupful of decoction of Scutellaria. The combination of the first two, he remarks, affords an agent of wonderful remedial power in such cases. "It acts upon the absorbents of the uterus with great energy, stimulating them to perform their functions more vigorously, and causing them to eliminate the effete matters that are engorged in the tissue

of the organ, and thereby reducing it to its normal dimensions." He considers that both the Iodide and Bromide of Potassium, which some writers recommend, are quite inert when compared with this combination. The only cases in which they might be preferable are those clearly of a tuberculous tendency. Chalybeates, nervous stimulants, strychniæ, &c., may be found necessary, either contemporaneously or subsequently.

Shortening after Fractures of Lower Extremities.—J. H. H. Burge, M. D., Surgeon of the L. I Coll. Hospital, advises, in measurements, to ascertain the degree of shortening after fractures of the lower extremities, to choose as the fixed points, the anterior superior spinous process of the ilium and the internal malleolus of the tibia. These points are so well defined at their lower border that sufficient exactness will be obtained. "All the real sources of fallacy in this method are such as can be easily overcome. They are as follows: 1st. When one limb is abducted more than the other. 2d. When the body and hips are inclined to either side, and 3d. When (as will often happen) extension and counter-extension are employed, the body and limbs cannot be brought to a straight line with each other." From the observations made and carefully tabulated, it would appear: "1st. That for every three inches an adult limb is abducted, it is shortened one-eighth of an inch; and the limb which remains on a straight line with the body, will be shortened one-fourth of an inch when the other is abducted to the extent of thirty-three inches. 2d. For every eight inches that both limbs are inclined to one side of the body, *i. e.* the one adducted and the other abducted; the adducted limb is lengthened one-eighth of an inch; and for every sixteen inches of the inclination, the abducted limb is shortened one-eighth of an inch."

In measurements, the same proportion will hold for younger persons. From the minute change, notwithstanding con-

siderable variation from the straight line, this particular method is seen to possess great superiority to the ordinary modes adopted, and is, therefore, well worth bearing in mind.

The N. Y. Ophthalmic Hospital and School held its Eleventh Anniversary on the 24th of February in the University Medical College in 14th street, before a large and highly respectable audience. The exercises of the evening were introduced with prayer by the Rev. E. Thomson, M. D., Editor of the *Christian Advocate and Journal.*

After some introductory remarks by Solomon Jenner, A.M., President of the institution, the names of the graduating class were read by Mark Stephenson, M. D., Lecturer on the Anatomy, Pathology and Treatment of Diseases of the Eye, who remarked to the President, that these young gentlemen (seventeen in number) were students from the different Medical Colleges in this city. Previous to this unfortunate rebellion, our classes were much larger, yet never have we had one more studious or more indefatigable in their clinical pursuits at the Hospital.

He also remarked that they had attended his lectures on Ophthalmic Surgery; been examined every Saturday by Dr. M. P. Stephenson; attended the cliniques three days in the week; learned to diagnose diseases of the eye, watched the effects of remedies from day to day, and witnessed the various operations at the Ophthalmic Hospital, where over one thousand patients are treated every year.

He then said he believed they had seen more diseases of the eye and were better prepared to practice this department of their profession than many physicians who have been twenty or thirty years in practice.

He complimented the class upon their final examination before each of the attending surgeons—and further remarked they were worthy of the testimonials about to be conferred upon them. The diplomas were then presented by the Presi-

dent to the following gentlemen, several of whom were graduates, and had been a number of years in practice:

Alex. E. Jenner, M. D., Ohio; John P. Schenck, Jr., Dutchess Co., N. Y.; W. J. Orton, Broome Co., N. Y.; DeWitt Webb, Dutchess Co., N. Y.; J. H. McCann, M. D, Louisville, Ky.; Robert King, Geneva, N. Y.; H. G. Olmsted, M. D., N. Y. City, N. Y.; James Hutchison, St. John's, N. B.; Charles R. Sanderson, M. D., Ohio; J. H. Chittenden, Binghampton, N. Y.; James H. Mills, M. D., Orange Co., N. Y.; Geo. C. Hayunger, Canada West; J. H. Hunter, M. D., Concord, N. H.; M. C. Rowland, M. D., Washington Co., N. Y.; J. M. Waddle, M. D., Arkansas; R. J. P. Morden, M. D., Canada West; Thos. Thompson, Delaware Co., N. Y.

The graduates were then addressed in a very forcible and impressive manner, well adapted to the occasion, and replete with judicious counsel and admonition, by Marcus P. Stephenson, M. D., one of the attending surgeons, under whose immediate instruction and private examinations they had been, during the past winter. The valedictory address was delivered by A. E. Jenner, M. D., the orator of the evening, chosen from the graduating class. It was attractive in style, profound in thought, and will be long remembered by that intelligent audience, and particularly so by his fellow students.

The entertaining exercises of the evening were closed by an eloquent address from John P. Garrish, M. D.

Before the benediction was pronounced by the Rev. Dr. Thomson, the President announced that the next Session would be commenced on or about the middle of October, at the Ophthalmic Hospital, corner 4th avenue and 28th street.

Camp Diarrhœa.—Prof. Alonzo Clark reports that in his hands the per-nitrate of iron with opium has proved more successful than any other remedy in controlling and ultimately curing army diarrhœa. Opium alone has been "found wanting," and bismuth, soda and nux vomica, cod liver oil, &c., of no avail. A simple diet has usually been ordered, but

a mixed, or even promiscuous diet has rarely proved particularly prejudicial. Indeed in the camps and hospitals it has usually been found that those who have the run of the cooking department soonest recover.

Dr. Clark found Bright's disease a very frequent concomitant of the diarrhœa.

We take the occasion to remark that active astringents are of little real efficacy in the vast majority of these cases. Well chosen, easily digestible articles of diet, fresh air, bathing, and tonics have succeeded best in our hands. The very elegant preparation of Bark and Iron, advertised on the cover of this journal by Mr. Sargent, has proved peculiarly efficient and satisfactory.

Gonorrhœa.—John Hastings, M.D., U. S. Marine Hospital, San Francisco, reports in the *Pacific Journal* his treatment of gonorrhœa. Patients in the acute stage are freely purged, kept quiet and placed on half-diet for three days, after which they are allowed full diet. The urethra, from the time of reception, is injected night and morning with a saturated infusion of fresh Hydrastis Canadensis. He is first directed to urinate, and after the injection to lie on his back for an hour so as to retain it. After the first purgative, no medicine is given internally. This treatment allays the chordee and ardor urinæ almost immediately, and in the course of a few days the disease is removed. Dr. H. says that, having used all kinds of treatment, he finds this produces a quicker cure, with less pain to the patient, than any other.

Dr. Hastings has also employed the infusion of Hydrastis as an injection into the bladder in Cystitis. For this purpose the temperature should be brought to blood-heat, and about four ounces thrown in daily. The pain on micturition is remarkably relieved. It, at all events, has this marked advantage, that it replaces with an innocuous agent the harsh and severe applications too frequently resorted to in such cases.

Pain in Diseased Bladder.—It is recommended, when the urine or calculous concretions produce great pain in the bladder, uncontrolable by the usual measures, to place the body upon an inclined plane, the hips being elevated. This throws the urine or other contents upon the upper and posterior parts of the bladder, which are much less sensitive than the *bas fond.*

Diabetic Urine, even when long exposed to the air, does not, like ordinary urine, give off any smell of decomposition. The sugar is converted into alcohol, which passes off by evaporation. This fact affords a tolerable test, when others are not at hand, for the presence or absence of sugar.

Illegitimate Births Per Annum.—In London, 4 per cent.; in Paris, 33 per cent.; in Brussels, 35 per cent.; in Munich, 48 per cent.; and in Vienna, 54 per cent. In Antigua in a single quarter the births were 194, of which 100 were illegitimate. The number of deaths during the same quarter was 460.

In this country the prevalence of the practice of procuring abortion lessens the proportion of illegitimates—to the unjust credit of its morality.

Vaccination During Pregnancy.—Prof. Meigs in his work on Obstetrics earnestly urges that under no circumstances should a pregnant woman or one recently confined be vaccinated. (*Op. citat.* p. 479.) He observes that he coincides with the almost unanimous sentiment of the profession that the woman who is confined during small pox dies. The vaccine virus, he argues, is but the variolous poison modified by passing through the system of the cow. He continues:

"The generical force of the inferior animal has modified a poison produced by the generical force of the human being. It has changed, not destroyed it. It retains a portion of its variolous power, which is inimical to the pregnant woman, and to expose one to its rage is a gross imprudence and misapprehension which I hope no student reading this book will

ever be guilty of. The shocking spectacles of distress that I have witnessed, from the vaccination of pregnant females, have so impressed my mind with the enormity of the imprudence, that nothing, I think, could tempt me to commit it myself. The most furious phlebitis, which is endangitis, and which becomes pyæmic fever, is one of the consequences likely to result from every true or spurious vaccination of a pregnant woman."

This is very strong language, and the high authority from which it comes entitles it to consideration. As for ourselves, we freely confess that, entertaing the general view of the imminent danger to the mother, confined during small pox, we have always urged vaccinnation if that disease was prevalent at the time; and, although we have certainly vaccinated scores in that condition, we do not recollect a case with more than the usual unpleasant consequences. Will some of our correspondents report their experience on this point?

Obstetrics: The Science and Art.—By Charles D. Meigs, M. D., lately Prof. of Midwifery and the Diseases of Women and Children in Jefferson Medical College at Philadelphia; Corresp. Memb. of the Hunterian Society, London, &c., &c. Fourth Edition, Revised. With one hundred and twenty-nine Illustrations: pp. 730. Philadalphia: Blanchard & Lea. 1863.

This is a new edition of a standard work, and we do not need to say more to our readers than that it is not merely a reprint from steretype plates, but has been thoroughly revised and improved by omissions, additions and corrections. The form has been materially changed by dividing the whole work into paragraphs, numbered from 1 to 959, thus enabling the student or practitioner to refer with ease to any topic sought. The article on placenta prævia has been entirely recast, the author wishing to notice certain new modes of treatment which he regards "as not only ill-founded as to the philosophy of the department, but dangerous to the people."

Prof. Meigs has established a reputation in his department

of teaching which is world-wide. Brilliant and fascinating as a lecturer, as a writer he is scarcely less entertaining; his book is a reflex of his mind—a photograph of his opinions. He is tenacious of his opinions, sometimes, in our view, incorrect—verging upon the dogmatic, but there can never be any doubt what his opinion is, for it is brought out clear as the sunlight. We shall have occasion to comment upon certain points of his instruction hereafter which our space will not at present permit.

Taken as a whole it is an invaluable work, which should be in the library of every practitioner—to be studied for its scientific and practical precepts, and to be admired for its artistic beauty as a specimen of typographical art.

On Diseases of the Skin.—By Erasmus Wilson, F. R. S. Fifth American from the Fifth and Revised London Edition. With Plates and Illustrations on Wood; pp. 649. Philadelphia: Blanchard & Lea. 1863.

This a truly magnificent work—magnificent not from its extent, but as a monument of genius, erudition, acute observation, philosophical analysis and lucid practical description. It stands deservedly at the head of all works upon the subject of which it treats. Diseases of the Skin—from the study of which the student shrinks—for which the most enthusiastic practitioners, with very few exceptions, betray an ill-concealed repugnance, and "the very nomenclature of which," as Alibert tersely expresses it, "is a terror!"

But, in reading these elegant essays of Wilson, the beforetime, dry and tedious branch of study positively becomes a recreation and a luxury. It reminds one of Darwin, and the times when a medical man could be a *litterateur* and a *savant* without necessarily being dull and soporose. Great accuracy of perception and refinement of description do not require indispensably the husky barrenness of a botanical grouping of qualities.

The first chapter is devoted to the Anatomy and Physiology of the Skin; the second to Classification; the third to General Pathology; and the fourth to General Therapeutics. Then follows a discussion of the subject matter of the work under two grand divisions: 1st. Diseases affecting the General Structure; 2d. Diseases affecting the Special Structure.

Under the first division he enumerates: 1. Diseases arising from general causes; 2. From special external causes; 3. From special internal causes; 4. From the syphilitic poison; 5. From animal poisons of unknown origin, and giving rise to eruptive fevers.

Under the second division: 1. Diseases of the vascular structure; 2. Of the nervous structure; 3. Of the papillary structure; 4. Of the pigmentary structure; 5. Sudoriparous organs; 6. Sebiparous organs; 7. Hair-follicles and hair; 8. Nail-follicles and nails.

The classification is clear and explicit, and the simplicity of the nomenclature adopted is worthy of all praise. The author does not find it necessary to make any display of wisdom by the invention of new specific designations. Indeed we do not recollect in the whole work a single new word "of learned length and thundering sound" to give fictitious dignity to some mere variety of a well known cutaneous disease.

It is safe to say that in no part of practice are medical men so generally negligent or deficient in knowledge as in this particular branch; and yet there are scarcely any forms of disease more frequently brought to their notice than those involving the skin. In this book the practitioner will find every part arranged for ready reference, with practical directions, definite, direct, and unequivocal. The student will find a distinctness of description and graphic portraiture which will enkindle his interest, impress his understanding, and indelibly imprint the subject upon his memory.

The few pages devoted to the hair-follicles and hair, alone are worth the pecuniary cost of the whole work; and the chapter on Syphilodermata, that and a dozen times more.

Although not so immediately practical, the chapter on Elephantiasis is exceedingly interesting and will richly repay perusal.

Transparent Paper.—It occasionally happens that it is desirable to copy sketches, diagrams, etc., a task which, trivial as it may appear to an expert, is a serious enough one to those not skilled in the art. It is well to know that Benzine, applied by a sponge over the paper used for tracing the design, will render it temporarily transparent, so that all that is necessary for the copyist to do is to follow the markings on the original with pencil or India ink as desired. The benzine will speedily evaporate, leaving the paper as before opaque. The odor of the benzine will disappear in a few hours. Ordinary tracing paper, rendered transparent by oils, does not give by any means so distinct a result, neither can it be so readily colored if coloring be desired. The benzine process was discovered by Prof. Oelschlager.

National Reward for Anæsthesia.—We have received, from some unknown hand, another bulky pamphlet in the shape of a report from a Congressional Committee on the petition of W. T. G. Morton to be awarded a compensation for the use of Ether in the army. His claims are fully set forth by the Com., but they fail to make any special recommendation in the premises. We regret this, because we believe, if ever any man was entitled to reward for invention or discovery, Morton is. Some of our *confreres*, we observe, are disposed to ridicule, or at least throw cold water on the claim, mainly, so far as we can discover, because W. T. G. happens to be a dentist instead of a doctor, and is in some disrepute for something like genteel begging from distinguished medical gentlemen and medical societies and institutions.

On the whole it *does* appear that W. T. G. is anything but

amiable at the reception his claim has met, and has not precisely suited in his movements the æsthetical ideas of the preservers of the dignity of the profession.

But, notwithstanding the alleged disagreeables of W. T. G. in his *personnel*, and his vain attempt to impose the burdens of a patent right upon those who employ anæsthetics, we still recall the immense boon which, whether willingly or unwillingly, has been conferred by him on the profession and the world—[and from our own immediate recollection of the facts of its introduction, we believe he was the man, and the only man, who has any shadow of claim to priority *practically*—either in its discovery or introduction]—and hence we sincerely trust that W. T. G. M. may have at least the $100,000 which his friends ask for him from Congress. This is by far too little, in our opinion, but this at least should be granted; not grudgingly, but with a free and generous sense of justice. A hundred years from now, and the whole world will wonder at the parsimony, ingratitude, and injustice which now stumbles and hesitates at this unquestionable act of common honesty.

Chemistry. By Wm. Thos. Brande, D. C. L., F. R. S. L. & E., &c., &c., and Alfred Swaine Taylor, M. D., F. R. S., &c., &c. *Experimentis et Præceptis.* Blanchard & Lea, Philadelphia, 1863.

So thoroughly are these eminent publishers advised as to the merits of the various works they reprint, that the very fact of the republication of a foreign book is about sufficient evidence of its valuable character. The present volume is altogether timely, and from a cursory glance it seems to be fully up to the standard of the science. It was received too late for particular notice the present month, but will receive due attention in the next issue, a professional friend of high distinction in this department having been requested to give the book a thorough examination.

Camp Fever.—Surgeon ALEX McBRIDE, in one of his valuable communications to the *Lancet and Observer*, characterizes Camp or Scorbutic Fever as differing materially from, although in many resembling the Typhoid Fever of Louis, or Enteric Fever of Wood. He thus tabulates the

DIFFERENTIAL SIGNS AND SYMPTOMS.

CAMP FEVER.	ENTERIC OR TYPHOID FEVER.
Abdomen soft, with little or no tenderness.	Abdomen tympanitic, with tenderness more or less intense.
Tongue generally large; frequently flabby and pale.	Tongue generally small, and red where not coated.
Tongue fissured always; fissures peculiar and continued through the entire course of disease; not dependent on dryness.	Tongue cracked when dry, but fissures not persistent; disappearing when the tongue becomes moist.
Appetite generally good, and solid food well borne in considerable quantity, but digestion imperfect.	Appetite slight, and food not borne except in small quantity of liquid form; digestion perfect when too much not taken.
No characteristic eruption during any stage of the disease.	Characteristic rose-colored eruption, usually in second or third week.
Delirium caused apparently by uræmic poisoning.	Delirium caused apparently by enteric inflammation and the general action of fever on sensorial system.
Alvine evacuations large and not characteristic.	Evacuations small and characteristic.

It is attributable to the diet and vicissitudes of camp and general military life. Briefly: "Large quantities of agotized food, imperfectly prepared; privation of anti-scorbutic food; long continued exposure to low temperature and damp air; the widest possible range of mental and moral excitement and depression." He is of the opinion that inflammation of the intestinal glands does not belong to this disease, although there is an excited or irritated condition of the mucus membrane caused by the passage of undigested and vitiated food over it, combined with the long continued exposure to cold and damp. The alkalies, the vegetable acids, acidifying fruits and vegetables necessary to digestion and assimilation are furnished in insufficient amount, and hence the scorbutic phenomena attending the essential diarrhœa.

In the treatment, he recommends Opium, the gum, powder or tincture, combined when indicated, with tannic acid or per sulphate of iron, or the tincture of the chloride of iron. The bowels to be moved, if at all, with castor oil and laudanum.

Quinine and Camphor with or without the addition of Morphia, is frequently of happy effect. Sp. Mindereri in half drachm or drachm doses, is an excellent remedy in his experience, "to promote moisture of the mouth and skin." The dry tongue, amenable to turpentine as it is in common typhoid, receives no benefit from that agent in the camp fever. "The partial suppression of urine which is perhaps the most fatal incident in this disease," is relieved best by the acetate of potash. Nitrous ether and acid vegetable drinks may be also employed freely.

He mentions Mercury only to condemn its use *in toto*, in cases of the kind. Epispastics are very useful in complications.

But the author wisely concludes that medicines are in these cases of altogether secondary importance. Regimen is everything, or paramount to everything. Cleanliness, warmth, free ventilation. Common food, well prepared, with a preponderance of anti-scorbutic vegetables. Patients low with the disease often eat with benefit, boiled potatoes and finely cut cold slaw. Cabbage and potato soups, boiled turnip with butter, milk, sweet or sour, according to taste, &c., &c. The patient's appetite, usually good, may be considerably indulged. Hard cider, diluted native wines, or in the absence of these, diluted vinegar, sweetened. Citric or Tartaric acids may be used for variety—so also jellies, sour fruits, &c., &c. Regimen like this, he believes, will suffice for the recovery of most cases of scorbutic or camp fever.

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ORIGINAL COMMUNICATIONS.

REPORT OF SURGICAL CASES TREATED AT THE BATTLES OF PEA RIDGE AND PRAIRIE GROVE, ARK.

PRIMARY AND SECONDARY AMPUTATIONS—RESECTIONS—EXSECTIONS, &c., &c.

By E. A. CLARK, M. D., Surgeon 8th Mo. Vol. Cavalry.

It is hoped that surgeons who treat their cases in private practice, with all the salutary influences of home, a pure atmosphere, careful nursing and a correct system of hygiene, will not be startled at the great mortality of cases—seemingly the most mild—treated in the army, under all the disadvantages we have to encounter in the field, where, under ordinary circumstances, the most necessary comforts of life are not available. Besides, during an engagement of any importance, the number of surgeons is never adequate to even give the wounded a casual examination, and apply temporary dressing to those requiring it, fast as they are carried from the field. When it is, especially at this time, that the most serious

wounds should be carefully examined—and where at all necessary—all capital operations performed. But upon this point even some army surgeons take issue, and spin fine theories in favor of secondary operations. But thus far, I have heard this opinion maintained mostly amongst those who have had little or no experience in military surgery. When, I think, every surgeon in the army who has had an opportunity of judging, must admit, that, in the great majority of cases, where amputation will probably be required, that it should be done immediately, before re-action is established; for in that peculiar condition of concussion immediately following a wound of such severity, the nervous system seems, in a measure, anæsthetized, and the patient will succumb much less to the operation, than at any reasonable period after the injury. Besides, it will be observed that re-action from both the wound and the amputation will be quite as readily established (except, perhaps, it be high up in the thigh) as it will after the secondary operation. In evidence of these facts, I have collected a number of cases to present which occurred at the battles of Pea Ridge and Prairie Grove, Arkansas.

At the time of the former engagement, on the 6th, 7th and 8th of March, 1862, I was connected with an Illinois regiment, and had under my immediate charge all the wounded of one brigade, amounting to 227; and there being an unusual scarcity of medical officers—no regiment having to exceed one—of course, it required all my time during the engagement to apply temporary dressings as the wounded came from the field. However, in a number of cases of wounds of the lower extremities, where the bones were badly comminuted, I amputated at once on the field. Of these, there were six cases of badly comminuted fracture of the tibia and fibula, from gunshot wounds, occurring in men of an average constitution, of those subsequently amputated. Also four cases of comminuted fracture of the femur, rendering amputation necessary at the middle third. Of those remaining, there were five with fracture of the leg at about the same point; and three

of the thigh, though less comminuted than the others, so as to indicate a probability, by conservative treatment, of restoring a union in the fractures. But afterwards deeming it expedient to perform the secondary operation, some weeks after the date of the injury—the comparative results were as follows: The six cases of primary amputation of the leg, all recovered without any remarkable symptoms, except in one case, in which secondary hæmorrhage appeared some five days after the operation, but with no evil results. Of the three cases of primary amputation of the femur two recovered, and one died four weeks after the operation from typhoid fever, but with the stump in good condition. Of the five cases of secondary amputation of the leg all died but one, and for quite a time I had almost despaired of saving him, but by the most diligent attention and his excellent constitution, he survived the fate of the others. Of the three secondary amputations at the femur all died. In all these cases of secondary amputation, sloughing of the stump and early prostration were the characteristic symptoms in every case, and in two cases of amputation at the leg, and one of the thigh—after the sloughing of the stumps had been considerable—secondary hæmorrhage ensued of an alarming nature, from the too early separation of the ligatures, and which required a second tying of the vessels, but without a very considerable loss of blood. In all these cases the secondary operation had the decided advantage. First, the wounds were not so severe, and the bones much less comminuted; inflicting a much less shock to the system; and at the time these cases were operated upon, they were in a comfortable—or rather comfortable—hospital, where at least they could have good attention and careful nursing, with a generous diet. While those operated upon first, were lying out of doors, in quite cold weather, for two days and nights with scarcely anything to eat, and but little medical attention, then were carried twenty miles in government wagons, to Cassville, Mo.

During the time of the engagement at Prairie Grove, on

the 7th Dec., 1862, the opportunity for performing primary operations was less favorable than at Pea Ridge, as all the wounded, amounting to 900, fell in the course of five hours, the medical officers had but time to place them in a comfortable position and apply such immediate dressings as they demanded; and being ordered the next morning to remove all the wounded without delay to Fayetteville, a distance of ten miles, which deprived the surgeons of performing such operations as seemed indeed imperative. However, in the field hospital of which I had charge, I performed two amputations at the middle of the thigh, for severely comminuted fracture of the femur, immediately after the wounds were received, before re-action was established, and while the patients were very much depressed from the concussion; both of these cases recovered without any sloughing of the flaps, or secondary hæmorrhage. In addition to these, I amputated at the same time three cases of comminuted fracture of the tibia, immediately below the knee joint, with equally favorable results, no untoward symptoms occurred and all had a speedy recovery. Of those who came under my immediate observation in the general hospital, at Fayetteville, where the operations were deferred until suppuration was established in the wounds and the constitution somewhat depressed, twelve cases of fractured femur were amputated at the middle and lower third of the thigh, under circumstances much more favorable than those amputated upon the field; yet, but one out of the twelve recovered. In every case, the flaps sloughed away so as to leave the bones denuded, and in five of them, secondary hæmorrhage ensued from sloughing of the vessels, so as to require a second ligation. One died from secondary hæmorrhage, and the remainder from prostration consequent upon repeated attacks of hæmorrhage, excessive sloughing, and suppuration of the stumps. In the case that recovered, the flaps entirely sloughed away, leaving about one inch and a half of the bone exposed, though not denuded of its periosteum, and by cutting away a margin of the granula-

tions around the bone and applying four strips of adhesive plaster twelve inches long and two inches in width, extending six inches above the edge of the stump, and attaching their free ends together, so as to apply extension over the foot of the bed, drawing the muscles forward so that granulations were soon thrown out over the end of the bone, and the patient recovered with a good stump.

Besides these cases of secondary amputation, there were eight of the leg operated upon at the same time, four of them at the upper third near the knee joint, three at the middle third and one at the lower third of the tibia, all of which were comminuted fractures of both bones, three of which had become gangrenous below the wounds at the time of the operation. But out of the eight, only two recovered, and they were of those amputated at the middle and lower third. In all these cases the flaps sloughed very early, and in two of those amputated at the middle third secondary hæmorrhage appeared on the fourth day, but was controlled by pressure and styptics. These cases resulted fatally from the same causes as those above mentioned of the thigh. These were all the cases that were under my control, and of which I kept any notes. But these results compare with the statements of all the surgeons in charge of the different wards in the city. However, I believe none performed any amputations upon the field, so as to make any data for a comparison between the primary and secondary operation. It is true, the few cases that have come under my observation, have not been sufficient to establish to a very great extent the proper practice in these cases, or prove very clearly this important principle in military surgery. But so far as they go, the comparative difference in the results of these cases, as I have stated them, are such as would be likely to influence the opinion of the surgeon under whose observation they occurred. And had the cases been hundreds, doubtless the comparative results would have been the same; and quite sufficient to influence the future practice of a proper observer.

The flap and circular operation performed in those cases of amputation at the thigh, seemed to possess but little advantage over each other. All the cases of secondary hæmorrhage occurred in the flap operation, from sloughing of the flap and artery, where the vessel was ligated in the flap; but in the circular operation, where the artery was retracted in the base of the stump, this accident did not occur, though the same amount of sloughing in the circular operation, of course, would leave a greater length of bone denuded—and, in this respect, the flap operation had the advantage.

The great proportion of mortality in all these cases would seem to indicate the necessity for a more conservative system of surgery, by properly adjusting the fracture with the most convenient apparatus, and by a judicious medication and diet, trusting the remainder of the case to nature. But even the results of this practice has not proven to be "conservative surgery," so far as my experience in the treatment of such cases has convinced me. After the battle of Pea Ridge, I selected from the hospital in my charge eight cases of fractured femurs, such as were the least comminuted, and indicated the most favorable prognosis. These cases were treated with different kinds of apparatus, owing to the peculiarity of the displacement of the fracture in each particular case. In one case, where there seemed to be no disposition to contraction of the muscles or sliding of the fragments, I dressed with a starch bandage, which seemed to keep the fragments in perfect apposition, and prevent the least mobility in the limb—this bandage, of course, had traps cut in it, so as to allow the pus to escape and the wound to be dressed; but union failed and the patient, after six months' suffering, died of debility and prostration. In all the other cases there was considerable contraction of the muscles with displacement of the fragments; two of them were dressed with Physic's splint, modified by the adhesive strips instead of the slipper; and instead of the perineal band, applied two long strips of adhesive plaster one on the front and the other on the posterior aspect of the

thigh, extending up, and passing through the mortice in the upper end of the splint. This means of counter extension, I found much preferable to the old method of applying this splint; it obviates that very extensive excoriation of the perineum, which in protracted cases is such an unpleasant consequence in the use of the perineal band. But these cases, too, failed to unite, and the patients died, one in four and the other in five months from the date of injury. In the remaining five cases, I applied moderate extension by means of adhesive strips applied to the leg, as in the dressing for Physic's splint. To the end of these strips was attached a cord, passing through a pulley fixed on the foot of the bed, with a weight attached proportionate to the amount of extension required, and the foot of the bed elevated from six to eight inches so as to prevent the patient sliding down in the bed. This dressing I found the most convenient and pleasant to the patient, the limb rarely requiring any other attention than merely to keep its under surface upon the same plane with the line of extension. But in all these cases—save one—union failed—abscesses formed—as in the other cases—between the muscles. the ends of the fragments became glazed with cartilage, and, in from three to five months the patients died of hectic and prostration. The one who recovered after a tedious confinement of sixteen weeks, finally got up with a firm union in the fracture and a shortening of but one inch.

In addition to these cases, I had also in the same ward six cases of compound fracture of the tibia and fibula, four at the middle and two at the lower third. In all of these cases the bones were very much comminuted, but being more superficial, I removed all the loose fragments of bone and applied the starch bandage soon as the swelling had sufficiently subsided, then allowed the patients to exercise on crutches soon as the dressing had become fixed. All of these cases recovered except one, who from a scrofulous habit and a cachectic condition of the constitution at the time of injury—union failed and the patient died in six weeks from hectic.

Bearing in mind the result of the cases of fractured femur at the battle of Pea Ridge, I had decided upon a different course of treatment, should I again have a similar class of cases. After the battle of Prairie Grove, in the ward to which I was assigned in the General Hospital at Fayetteville, besides those amputated, I had nine cases of compound fracture of the femur from musket balls, and all of which were more or less comminuted—equally so with those just described. One of these—the least comminuted—I treated on Smith's wire splint, as described by him in one of last year's numbers of the *American Journal of Medical Science*—without any interference whatever with the wound or fracture, and with a perfect success, it being also very pleasant to the patient, confining him much less than any other apparatus, besides its cleanliness and convenience in every respect. In the remainder, I removed all the fragments of broken bone from the wound, by making an incision into the wound sufficiently large to admit of the removal of the larger fragments, and in four of these cases turned out the ends of the bones, and with a saw and pair of forceps cut them almost, or quite, square, placing them in apposition again; with the aid of binders, boards, and a roller bound above and below the wound, was able to keep the limb in good position without counter extension, or any further dressing. All these four cases recovered with a firm union, in ten weeks from the time of injury. Of the remaining four, from which I only removed the fragments of bone, but two recovered, the other two suffered constantly from diarrhœa during their whole course of treatment, and at the end of eight weeks died from exhaustion, with but little effort at union in the fracture. However, out of the nine cases treated upon this plan, seven were successful; showing a much larger per cent. in its favor than the former method. The results in these cases, as well as several cases of exsection performed for fractures of the arm, would seem to indicate that this mode of practice is by far the most "conservative surgery," when in the great majority of cases

the chances of securing union by resection are two to one of saving life by amputation—especially in the lower extremities. And the chances of securing union with or without exsection are five to one in favor of the former.

This operation is equally, if not more successful in wounds of the upper, than in those of the lower extremities, as indicated by the following cases which occurred at the battle of Prairie Grove:

Col. J. C. B., 37th Ills. Inf., aged 24 years, wounded by a Minie ball passing through the left arm from behind forwards, fracturing the humerus at the junction of the middle with the lower third. The bone was very much comminuted, crushing one inch and a half of the shaft of the bone, breaking it into some half dozen fragments, besides the soft parts were considerably lacerated, and the wound extremely painful.

Treatment—Anodynes and stimulants for twenty-four hours with water dressing to the wound, and the limb kept in as easy a position as possible, when re-action came on with some febrile symptoms and an erysipelatous appearance about the wound.

Third day—Wound considerably inflamed and arm very much swollen, skin hot, face flushed, and pulse 92. Prescribed a saline cathartic, and cold water applied constantly to the arm, with an anodyne of Morphia at bed time.

Fourth day—Arm less painful, febrile symptoms subsided, and pulse 84. Prescribed three grains Dover's Powder every four hours.

Fifth day—Symptoms still subsiding; and on the tenth day all appearance of erysipelas had passed away, and the swelling very much reduced in the arm.

On the eleventh day, assisted by Medical Director Hubbard and others, I placed him under the influence of chloroform, and made a free incision five inches in length at the wound on the posterior aspect of the arm. After removing all the fragments of broken bone from the wound, turned out the fractured ends and removed their pointed extremities with

the bone forceps, which in all took away two and a quarter inches of the shaft of the bone. During the operation there was but little loss of blood, and after re-adjusting the bones in proper position placed the arm in an angular box, open at the top with an angle of 135 degrees at the elbow, extending from the hand to the shoulder, and lined with cotton on the inside so as to fit the shape of the arm, and hold it in an easy, but steady position. The piece on the outer side of the box extending from the shoulder to the elbow, made separate and fastened by hinges to the bottom of the box, so that when it was necessary to examine and dress the wound, it could be readily done by turning down the side of the box.

Some three hours after dressing the wound, and placing it in the box, I returned to my quarters, near a quarter of a mile distant, but was soon followed by a messenger in great haste, stating that the Colonel was bleeding to death. I returned immediately, and found that he had bled near three pints, and the blood still escaping from the wound at a fearful rate, but not with a jet such as would indicate that it came from a single artery of any size. (The brachial artery, of course, being avoided in the operation). I at once removed the dressing, and applied cold water to the wound, which with the aid of the atmospheric air, seemed to check the hæmorrhage for a time, but only to return with renewed force. I then made compression on the brachial artery with the thumb, but this seemed to have little effect upon it, as the hæmorrhage seemed to spring from the enlarged vessels of the collateral circulation given off about the shoulder and axilla. After this effort had failed, and the hæmorrhage still continuing at a fearful rate, I at once sent for counsel, and while the messenger was gone, filled the wound with a tampon of scraped lint, which seemed to restrain the bleeding for a few minutes, when it would well up and burst out again profuse as ever. By this time—although he was in a recumbent position—symptoms of syncope began to appear, with a pale and anxious expression in the face. At this time two surgeons arrived, who, on

a moment's reflection, decided to amputate at once. But I still felt a hope that the hæmorrhage might be controlled, and would not give my consent to amputate until we had made a further effort to stop the hæmorrhage; they could suggest no other means than what had been used, and decided that amputation was imperative and should be performed immediately as he was sinking rapidly. I then sent for some liquor ferri persulphatis, which I applied by saturating large pieces of sponge and introduced into the wound, so as to completely tampon it. This had a most happy effect—in less han fi vet minutes the hæmorrhage had entirely ceased, and in forty-eight hours removed the sponges without a particle of hæmorrhage occurring afterwards. Kept the arm fixed in the box above described for five weeks, when it was removed and union discovered to be quite firm in the fracture. I then dressed the arm with splints and a roller bandage from the elbow to the shoulder—leaving a gap at the wound. He soon after went on leave of absence to Danville, Ills., and returned in five weeks to resume his duties, with his arm firmly united, and no deformity except the shortening and an impaired use of the elbow joint from contraction of the muscles; but this difficulty is being rapidly obviated by the continued use of the arm.

Lieut. D. L. H., 26th Indiana Inf., aged 27 years, received two wounds at Prairie Grove. In one, the ball entered near by and to the right of the umbilicus, penetrating the external and internal abdominal muscles to the space between the latter and the transversalis muscle, then passing downwards and backwards a distance of six inches, to exit at the under margin of ribs. This wound produced very great concussion, and in a few moments the patient was in a collapsed condition, and while being carried from the field another ball struck him on the inner and anterior aspect of the right forearm three inches below the elbow joint, passing backwards and upwards through the upper end of the ulna to exit on the posterior s ace, opposite the base of the olecranon process, crushing

the head of the bone into small fragments, separating the olecranon and coronoid processes, allowing them to be retracted for some distance by their respective muscles. The orbicular ligament of the radius was also lacerated, so as to allow a dislocation of that bone forwards and outwards. In thirty-six hours after the injury, when re-action was well established, he was placed under the influence of chloroform, and a free incision five inches in length made longitudinally through the posterior wound, and all the loose fragments of bone removed, detaching the olecranon and coronoid processes from the tendons of the triceps and brachialis anticus muscles, then with the chain saw removed one inch and a half of the pointed end of the ulna, carrying away, in all, five inches of the upper end of the ulna including the articulation. During the operation—which required some fifteen minutes—there was but little loss of blood, (using care to avoid the radial and ulnar arteries), and the patient re-acted very readily after the influence of the chloroform had passed off, and the arm placed in an angular box similar to the one above described, excepting, that along the extent of the wound, the box was left open on the outside, so as to admit of water dressings being applied to the wound. The upper end of the box on the inner side was cut so as to fit close into the axilla, and two strips of adhesive plaster, each one and a half inches wide, placed, one on the top, and the other upon the inner side of the forearm extending up to the elbow joint, and attached by their lower free extremities to the lower end of the box at the hand; making sufficient counter-extension on the radius to reduce it, and hold it in its articulation without any further dressing. For twenty-four hours nothing unusual occurred in the wound and the patient in good spirits, when a most fearful hæmorrhage came on from the small arterial vessels opening into the wound, but by tamponing the wound with pieces of sponge saturated with Liq. ferri persulph., the hæmorrhage soon subsided, but left the patient quite faint, with considerable nausea and a disposition to vomit for some hours, and after the lapse

of thirty-six hours—the sponges having been removed from the wound—hæmorrhage came on again profuse as before, but another application of the styptic soon controlled the hæmorrhage, but left the patient very pale, faint, and constant nausea, with continued efforts at vomiting, and a most intolerable thirst, but could retain nothing on his stomach for five minutes at a time. Frequently the extremities were cold, the skin colorless and pulse frequent, but very feeble. This condition continued for four days, threatening very seriously the life of the patient, although there was no more return of the hæmorrhage, and by the constant use of alcoholic stimulants, kreosote, lime water and anodynes these symptoms gradually subsided, the wound commenced granulating with a healthy suppuration, and in eight weeks from the time of the operation had quite filled up and ceased discharging. The use of the arm, however, was very much impaired at first, owing to the large cicatrix in the wound after it had healed, there was a disposition to contraction of the muscles so as to prevent flexion and extension of the forearm, as well as pronation and supination to a considerable extent. But by a constant effort at the execution of these movements, this difficulty was much obviated, and on the first of April, when I saw him last, he had acquired quite good use of the arm, so much so as to be of very great service to him, though he will probably never acquire perfect use of the limb. However, its great utility will well repay the dangers he incurred in submitting to an effort to save it.

These particular cases I have given in detail, to indicate some of the worst contingencies that are likely to occur in the treatment of cases upon this plan, and which, indeed, very rarely present so many unpleasant symptoms in a single case, as the two described. Besides these, I performed resection of the radius on two cases at the elbow joint, removing three inches of the head of the bone. Also two cases of the ulna similar to the one just described, but with no untoward symptoms, and all had an early recovery, with limbs sufficiently

useful to perform any ordinary business. I had also three cases of exsection of the humerus, very similar to the one described above—but without any of the alarming symptoms attending that case—all of which recovered without any delay, and a complete union in the fracture with perfect use of the limbs, save the slight deformity from shortening.

This method of treating gunshot fractures does certainly seem to have a precedence over every other; both in saving life and preserving the usefulness of the limb. The patient is always more grateful to the surgeon who saves his limb, however much deformed it may be, than to the one who mutilated him, and prunes the limbs from his body, as is often done, just for the satisfaction of having performed an operation, that any butcher might do. This practice has been too common in the army by bloodthirsty surgeons; which to some extent accounts for the unnecessary number of mutilated soldiers who are sent home, as well as the great list of mortality in our military hospitals.

He is the best surgeon who saves the most lives, and performs the least number of amputations. This is "Conservative Surgery."

CALOMEL IN THE ARMY.

The Surgeon General of the United States Army has issued the following very extraordinary order:

SURGEON GENERAL'S OFFICE,
Washington, D. C., May 1, 1863.

1. From the reports of medical inspectors and the sanitary reports to this office, it appears that the administration of calomel has so frequently been pushed to excess by military surgeons as to call for prompt steps by this office to correct this abuse; an abuse the melancholy effects of which, as officially reported, have exhibited themselves not only in innumerable cases of profuse salivation, but in the not infrequent occurrence of mercurial gangrene.

It seeming impossible in any other manner to properly restrict the use of this powerful agent, it is directed that it be struck from the supply-table, and that no further requisitions for this medicine be approved by medical directors. This is done with the more confidence, as modern pathology has proved the impropriety of the use of mercury in very many of those diseases in which it was formerly unfailingly administered.

2. The records of this office having conclusively proved that diseases prevalent in the army may be treated as efficiently without tartar emetic as therewith, and the fact of its remaining upon the supply-table being a tacit invitation to its use, tartar-emetic is also struck from the supply-table of the army.

No doubt can exist that more harm has resulted from the misuse of both these agents in the treatment of disease, than benefit from their proper administration.

W. A. Hammond, Surgeon General.

Mr. Editor:—The above "order" will possibly create more discussion and feeling than any one issued, from a subordinate department, during the war. It asserts, as *fact*, from "reports of medical inspectors and the sanitary reports to this office," sources of supposed knowledge and information—that which the public at large, and the medical profession will be startled at reading—without naming the department, or *who are* the "military surgeons" who have committed the "*abuse*," the public at large and the profession are required to believe, from the remedy proposed, that *every surgeon and every department* has been guilty of "abuse," and the means of preventing future evil would impress the *fact* as a *general charge* by withholding from *all* "this powerful agent." The Surgeon General by this order does not propose to correct, modify, or amend the evil—but radically to destroy the *agent* or *source* of the evil. For three thousand years the most gifted minds have been investigating nature for agencies in the cure and prevention of diseases, and the motto "*Ubi virus ibi virtus*" is now regarded as an axiomatic fact. The *potentive agency* of any remedy has never before been regarded with disfavor—on the contrary, pharmacy, for fifty years, has busied its votaries with the *one* and most desirable demand—*potency, dynamia, concentration*. Discard from every remedy effete

ingredients—Morphia, Quina, Strychnia, Hyd. Acid, &c., is the result and boast of the research. No educated surgeon would discard a remedy because of its powers—for he knows its usefulness consists in its *power*. The risibility of an educated man is excited by the quintillionth part of a grain of charcoal from the want of *potency*. Why then should his fears be alarmed when dealing with agencies, whose power he can calculate, and over whose power he has complete control? This education and acquisition of knowledge makes the distinction in life and qualifies men for stations that all other guards would render dangerous to themselves and others. Why educate physicians, engineers, pilots, &c., &c., if it be for any other purpose than to acquaint them with powerful agents, and so to restrain and subdue those agents as to make them subservient to man's advantage? Electricity is a "powerful agent," yet it is guided on wires and made to "tick out" news of great and startling import. Steam, the most "powerful agent," has added to man's happiness, and extended blessings with a more liberal hand than any discovery of either ancient or modern times, yet its *power* is its utility, and by education and restraint this "powerful agent" is made man's servant and greatest benefactor. I will not pursue this subject, as its full elimination would strike from the list of remedies Opium, Chloroform, Digitalis, Veratria, Quinine, and a host of most "powerful agents," and leave us only such as from their impotency would produce neither results for good nor evil. I can not conceive the Surgeon General meant that Calomel and Tart. Ant. were the only "powerful agents," and consequently struck them from the list, but that they were powerful and therefore should be stricken off. Why should others of equal power be retained? Because they are useful, would be the reply. In what consists their usefulness? Their *power*, because if *powerless* they would be *useless*. Ergo, all "powerful agents" should be stricken from the supply table. I would respectively assert that Tinct. Ver. Viride is more *dangerous* because more *pow-*

erful than either Calomel or Tart. Ant., and a use of the remedy will illustrate this assertion.

In all our Western States an Examining Board was instituted by law, and is now in session daily exami ning candidates. I know several of these Boards and was examined myself. All these Boards are men of equal medical and surgical knowledge, and in two Boards with whom I am acquainted are men not surpassed in acquirements in this or any other country. These men are competent, honest and conscientious—and to charge the military surgeons indirectly or directly with ignorance and abuse of the use of "powerful remedies" is to censure the action of these Boards. That there are men in the army equal to those in private practice is not saying too much—that ignorance and abuse of any remedy to any extent exists in the army is saying what neither the "*medical inspectors*" *nor the sanitary reports* can prove. It but accords with the reports of the use and confiscation by Army Surgeons of food and clothes sent by the public for the use of the sick. Few months since, every newspaper was full of reports of these "rascalities," and no men since the war have so liberally shared public scandal and falsehood as the surgeons. Selected from the very highest positions in society—men of acknowledged qualifications, they have borne more calumny and suffered more in personal and professional reputation than any other department. The public are too prone to believe the statements of bad men, and the pale and emaciated returned soldier in his recounting of his escapes and suffering never fails to enter a deep and damning record against the surgeon, whose skill has saved his life, and whose only fault was not giving him what was not supplied; or withholding from a diseased and capricious appetite that which would have destroyed his life. These are the sources of abuse—and moreover, in the anxiety to do good and in the ignorance of what way to consummate the desire, the sanitary visitors find in all hospitals and camps, a man who, while he appreciates the motives, knows the results and interdicts officious interference.

After the battle of Shiloh, a number of good men and good women visited the camps—many, very many, God bless them, were efficient, patient and useful—many others knew too much for a nurse and not enough for a surgeon and returned in ineffable disgust, criticising every thing, from the manner in which the battle was fought to the treatment of the wounded, and, in some instances, assumed the control of boats, hospitals and tents, to the exclusion of all outsiders.

From such sources the Surgeon General obtained his information. Of this class was not the Governor of this State. He came, took off his coat, asked for work, took advice and followed it, and has acquired a reputation, and deservedly so, that will outlive his highest official actions. If he found any thing deficient, or wrong, he supplied the deficiency and corrected the wrong. Another, and from an equally unqualified a source as these, in the Western and Mississippi Department was from Medical Inspectors—or what is of the same class, Brigade Surgeons, Medical Directors, &c., &c. I saw fifteen during my stay in the army; thirteen of these were from north of the Connecticut river. They were sent to manage the surgeons of the Mississippi. Not one of these thirteen had seen a case of intermittent fever generated in the locality where they practised, as no case of intermittent has occurred north of Connecticut river during their natural lives. These reports to the Surgeon General are made by men whose knowledge of western diseases was acquired from daily visits to camps, and if in them some abuse of Calomel were found (and that there were such cases there can be no doubt), these cases were magnified until a "pressure" too great for the shoulders of the Surgeon General was brought to bear and in an unguarded moment, he has perpetrated a slander on his profession, and has arraigned indirectly men who are his peers in the profession although they do not wear his shoulder straps.

To directly arraign the whole number of military surgeons from such sources of information is unkind and unjust, and the Surgeon General will repeal this order and make either

an explanation or an apology for its issue. He begins at the wrong end—interdicts the "powerful agents," but leaves the inferential stupid apes in positions where they can obtain for a trifling sum, on private account, any quantity of these—and more—have in their hands and will use (if stupidly they use these two "powerful agents,") agents more potential than either. Why not privately address the offending parties and give them warning and a means of defense—rather than sweepingly include all. I have lived through two medical reforms and was seeing the rapid disappearance of another less dangerous, because more harmless, but never before has come from the head of the profession (or at least he should be) so sweeping a charge for the enemies of legitimate medicine as this order.* He demands effects without causes—brick without straw—responsibility—yet cripples resources. It certainly means no surgeon shall use Calomel or Tart. Ant., or why strike them from the supply? If, therefore, any one, in the treatment of Syphilis, should use Calomel—or in Pneumonia, Tart. Ant.—he disobeys the spirit of this order, and would be liable to censure. Should, however, the case of Syphilis, which all know to be amenable to Calomel, terminate in secondary and fatal symptoms—should the Pneumonia from the first stage of congestion and inflammation run to the second one of hepatization, and the third of softening, and Tart. Ant. (who all know, in and out of the army,) could have controlled it in its first stage, be withheld, who is responsible? Surely not the army surgeon, as he has not had the remedy furnished, and in its denial, interdicted its use. As a friend of the Army, as the friend of the Army Surgeon, and the friend of the Surgeon General, we say, let no such interdiction exist. Give all means for combatting disease and hold men responsible. These acts are as reasonable as the

* This morning, a noted Thompsonian said, in my presence, "that Sam'l. Thompson was vindicated in his opposition to *Mercury* by the highest American authority." A little pill doctor in this city is willing to bet a hat "in sixty days an order will be issued to restrain the use of a number of *Allopathic remedies* and the introduction of Homœopathic practice."

man who refused to allow his son to learn to write because he might commit forgery.

Had this order emanated from General Hascall, we would not have been surprised, but coming from one appointed over his seniors—one who had taught his profession, and one in whose hands the honor and fame of its usefulness are placed—it is strange that some other mode was not used to remedy an alleged evil than the degradation and insult of all the surgeons in the army.

That something will be said of this order in the coming U. S. Medical Convention, I do not entertain a doubt. We look to this body for protection, and if I mistake not the temper and character of its members, there will be a settlement of this and several other evils under which the profession has labored during this war—until then *nous verrons*.

I will resume this subject in your next number if the order be not withdrawn. Yours,

A Surgeon.

SELECTED.

CASES ILLUSTRATIVE OF THE SO-CALLED "CONGESTIVE FEVER," OR CEREBRO-SPINAL AFFECTION

WHICH HAS RECENTLY APPEARED IN THE CAMPS IN AND AROUND THE TOWN OF NEWBERN, N. C.

By J. BAXTER UPHAM, M. D., Surgeon in Charge of Stanly Gen. Hospital, Eighteenth Army Corps.

I propose, in the present paper, to give, in outline, a few brief notes of the cases of this affection as it has presented itself in hospital during the last two or three months. The

disease (so far as I can learn) has, in every case, originated in the camps adjacent to the town, whence it has been brought into the hospital at an earlier or later stage of its progress. The records here submitted are from the note-books of my associates on the medical and surgical staff of the Hospital, and the autopsies were made—under my own inspection mostly—by the attending surgeons in whose wards they occurred.

The four cases first adduced were in the service and under the care of Assistant Surgeon J. Q. A. Meredith, of the 103d Regiment Penn. Vols.

Case I.—J. M., a private, aged 19, was admitted to Hospital on the evening of January 16th, in a moribund condition. No previous history of his case could be obtained, further than that he had been attacked the night before, suddenly and violently. When admitted, he was unconscious, having frequent epileptic spasms; frothing at the mouth; pupils insensible to light. Tonics and stimulants, in large doses, were prescribed, and stimulating injections were administered; these last were not retained, but brought away immediately large quantities of hardened fæces. Sinapisms were applied over various parts of the body and limbs.

17th.—No improvement; skin moist and moderately warm; pulse 160, irregular, soft and very compressible; spasms growing worse; stimulants assiduously employed. Died, without a sigh, at 4 P. M.

Autopsy, twenty hours after death. *Head*—Investing membranes of the brain were found much congested—the substances of the brain itself slightly so, with a deposit of pus-colored fluid within the ventricles and at the base of the brain, and upon the lobes of the cerebellum. *Chest*—Lungs greatly congested; more posteriorly than anteriorly. Heart normal in size, with a deposit of lymph in both ventricles. Stomach healthy. Liver normal. Spleen of natural size and highly congested. Kidneys and Peyer's glands healthy.

Case II.—J. C., a private, aged 17, was admitted to Hospital Jan. 10th. No statement of his previous condition received. When admitted, he was in a high state of delirium, with a hot and arid skin; tongue dry and almost impossible to protrude; abdomen tympanitic; pulse frequent and feeble; surface of a livid color. He had involuntary discharges from the bowels, of a blackish hue. His respiration was hurried and difficult; extremities cold. Prescribed pil. hydrarg., gr. i. every hour; quinia, gr. ij. every two hours. Hot applica-

tions to back, abdomen and extremities. Whiskey and beef-tea.

Jan. 12th.—No abatement in virulence of symptoms. Continued pil. hydrarg., with an equal amount of pulv. ipecac. every hour. Quinia, grs. iij., every two hours. Continued whiskey, beef-tea and hot applications.

13th.—Growing worse; constant muttering and occasional exclamations. Continued treatment, adding neutral mixture and acid drinks, with sinapisms to chest.

14th.—No improvement. Applied blister to chest and back of neck. Quinia, gr. v., every two hours. Morphia at bed time, to check diarrhœa.

15th.—Moribund. Died at 4 P. M.

Autopsy, twenty hours after death. Body small, spare, somewhat below the medium size; external appearance of a dark livid hue. *Head*—Upon removing the calvarium, the investing membranes of the brain were found to be somewhat congested. On cutting into the substance of the brain, some points of blood exuded, more prominent than natural. The arachnoid presented a slightly clouded appearance. In other respects normal. *Chest*—Heart normal; lungs greatly engorged, more so in posterior and dependent portion, where were found circumscribed spots of discoloration, varying in size from that of a split pea to a five-cent piece, resembling somewhat the condition of pulmonary apoplexy. The same appearance, though less marked, anteriorly. *Abdomen*—Spleen nearly double its natural size, greatly engorged with blood. Liver slightly enlarged and somewhat congested. Kidneys normal. Stomach healthy. Peyer's patches in a few instances more prominent than natural, friable, apparently, with, in one case, ulcerative points; not having, however, the legitimate appearance recognized in typhoid fever. Other organs healthy.

Case III.—C. B., private, aged 18, was admitted into Hospital Jan. 16th, in a moribund condition. He had been on duty the day previous, and was attacked in the afternoon with chills, headache and delirium. Cups were applied to the back of the neck, and cathartics and quinine were administered freely. Upon entering the hospital, his breathing was irregular, difficult and accompanied with groaning; 44 inspirations in a minute. His pulse was imperceptible. There was a mottled appearance of the skin, approaching petechia. Percussion of chest clear anteriorly; the extremely low condition of the patient precluded percussion posteriorly. Directed enema

of spts. vini gallici, ℥ iv.; ol. terebinth., ℥ i. M. Whiskey and quinine to be given freely. Sinapisms applied to back of neck, spine, abdomen and extremities.

The patient died at 4 o'clock P. M.

Autopsy, twenty hours after death. Body of medium size and well developed. *Head*—Brain but slightly congested in its substance, having at its base a deposit or exudation of tenacious consistence, presenting much the appearance of false membrane, conjoined with a pus-colored fluid, most noticeable and abundant around the origin of the nerves of sense and on the base of the cerebellum. The same substance also occurred in the ventricles. No alteration in the texture of the brain itself. *Chest*—Lungs extensively congested, more posteriorly than anteriorly; the upper portion interspersed with tuberculous deposits; the lungs were generally crepitant, with well-defined spots, resembling those of pulmonary apoplexy. Heart normal in size, with extensive deposits of lymph in both ventricles. Old adhesions of both lungs to pleura, and of left to diaphragm. *Abdomen*—Liver enlarged and congested. Stomach healthy. Spleen enlarged to double its natural size, and greatly congested. Kidneys normal. Intestines healthy. No alteration of Peyer's patches.

Case IV.—S. P., a private, aged 32, was brought to Hospital Jan. 16th, in a moribund state. No history of his previous condition given, though we learned from his comrades that he was attacked suddenly the day before. Quinine and whiskey, with capsicum, administered in free doses. Brandy and spirits of turpentine given in enema.

Jan. 17th.—Patient this morning was lying on his right side, his head thrown back, groaning heavily, giving indications of great pain. He was roused with difficulty. His skin was moist and moderately warm; sordes on teeth; tongue dry and inclined to black; pulse 120, weak and compressible, inclined to intermit; petechial eruption on limbs; percussion good in front, flat posteriorly. Treatment of previous day continued. Sinapisms also applied to back of neck and chest, abdomen and calves of legs.

Evening.—Growing worse; powers rapidly failing; totally unconscious and insensible. Same treatment continued with more vigor, accompanied with frictions along the spine.

Jan. 18th.—Died at 7 A. M.

Autopsy, six hours after death (conducted by Dr. Fisher, Assistant Surgeon of the 44th Mass.) Cadaver of good size, well developed; no emaciation. Rigor mortis very strongly

marked. A few petechial spots are to be seen upon the arms and hands. *Head*—On removal of the calvarium signs of congestion were apparent, the veins of the investing membranes being considerably engorged, beneath which a purulent lymph-like substance was observed, thinly spread over the surface of the brain—upon the base and between the lobes of the cerebellum particularly—and, in greater abundance, about the origin of the nerves, and upon the surface of the medulla oblongata. The same substance was also seen in the lateral ventricles, being here more opaque and thickened than elsewhere. The substance of the brain itself was apparently normal. *Chest*—Lungs moderately congested, more posteriorly than anteriorly, crepitant throughout; old adhesions upon the left lung. Upon opening the pericardium, an abundance of diffluent lymph, easily washed away with water, was observed; its inner surface uniformly congested. The ventricles of the heart were filled with dark fluid blood, which subsequently clotted in the basin. There were no fibrinous deposits; size and texture of heart normal. *Abdomen*—Stomach not examined. Liver normal in size and appearance. Spleen enlarged and slightly softened; of a deep maroon color. Kidneys normal. Small intestines, in the space of two feet from cœcum, showed Peyer's glands, in one or two instances, more prominent than natural; in one case, some loss of substance, not amounting to ulceration; one or two patches a little raised or thickened perhaps. No redness or congestion of the mucous membrane.

The cases which follow occurred in the wards under the charge of Dr. J. B. Treadwell, Ass't. Surgeon of the 45th Mass. Vols.

Case V.—J. M., a private, aged 21, was received into Hospital on the 14th of January, in an algid condition, exhausted and delirious. The statement of his regimental surgeon, Dr. Robert Ware, is to the effect that he was seized, on the 12th, with a chill, followed by high febrile excitement, with a full pulse, and, at first, a hot skin; soon after became delirious. He had been treated with full doses of quinine, the free administration of stimulants, and cupping at the back of the neck. A similar line of treatment was continued on his admission to the Hospital.

Jan. 15th.—Passed an unquiet night, with but little sleep. There was constant muttering delirium and jactitation; pulse 80, very weak; skin cool and moist; respiration quiet; bowels open; marked subsultus tendinum.

Evening.—Symptoms much the same, but aggravated. Died at 12 o'clock, midnight.

Autopsy, twelve hours after death. Body well developed; no emaciation; rigidity about as usual. *Head*—Both ventricles of the brain were greatly distended with a semi-opaque fluid, having a pus-like deposit at the bottom. This same deposit was also manifest at the base of the cerebellum, and entangled about the origin of the nerves of sense, where it was abundant, lymph-like, somewhat tenacious, much resembling false membrane in appearance, and could be traced onward, by carefully unfolding the convolutions, into both lateral ventricles. *Chest*—About three ounces of fluid were found in the pericardial cavity. Heart below the normal size; mitral valves a little thickened; very firm adhesion of the pleural surface throughout the whole of the left side. Right lung, with the exception of a small portion of anterior lobe, congested. Left lung one-third smaller than natural—the result of disease. *Abdomen*—Liver of natural size; external appearance good; interlocular veins somewhat congested. Spleen normal. Kidneys healthy. Stomach slightly congested, with cadaveric softening along its greater curvature. Peyer's patches appeared slightly engorged and enlarged, and were more prominent than natural.

Case VI.—G. B., a private, aged 21, was received into Hospital in evening of the 19th of January. The statement of his regimental surgeon, Dr. Robert Ware, was as follows: "Patient was attacked suddenly with symptoms of a severe cold, and some disposition to paralysis of the tongue and muscles of the face. He was treated with quinine in half-drachm doses, stimulants and beef-tea, and was cupped to the extent of five ounces at the back of the neck. Reaction came on, though incompletely.

"Jan. 19th.—Same treatment continued, but he has become gradually worse, and, since noon, delirious."

Evening.—Patient, on admission into Hospital, appeared in a state of complete exhaustion, almost amounting to collapse, death following immediately.

Autopsy, twelve hours after death. Body of medium size, but little emaciated. Rigor Mortis great. Arms, chest and legs studded with petechial spots, of one, two and three lines in diameter. *Head*—The membranes of the brain but little, if any, congested. Slight cloudiness on the superior surface visible through the membranes; a little opacity of the arachnoid noticed; otherwise nothing abnormal. *Chest*—Lungs

more than usually engorged, especially at dependent and posterior portions; crepitant throughout. The pericardium contained six or eight ounces of sero-purulent fluid, holding in suspension masses of flocculent lymph; both surfaces covered with a layer of lymph, of sufficient thickness and consistency to be torn off like a membrane, having the appearance, in fact, of genuine false membrane; some fibrinous clots in the ventricles, and thickening of the mitral valves. *Abdomen*—The liver, spleen and kidneys were normal; mucous membrane of stomach and intestines also natural. Peyer's patches healthy.

Case VII.—O. W. W., a private, aged 22, was suddenly attacked, according to the statement of his regimental surgeon (Dr. Newton), on the 13th of January, with violent headache, accompanied with hot skin and full pulse.

14th.—All symptoms aggravated, with retention of urine.

Jan. 15th.—Admitted to Hospital in a state of high febrile excitement; pulse 70, full and moderately strong; hot skin; dusky hue of face; easy respiration; much delirium, patient frequently attempting to get out of bed. Prescribed wine, ℥ i. every two hours; quinine, gr. vi. every three hours; also, hyd. chlor. mit., gr. xv., to be taken at once, to be followed in three hours with carb. ammon., gr. v. Delirium still increased; skin became cool and moist, with less febrile excitement. [The further notes of this case have been mislaid.] All symptoms, however, became rapidly aggravated; delirium gave way to symptoms bordering on coma; the respiration became hurried; involuntary discharges increased, and the patient died, with but slight signs of exhaustion, on the 22d of January.

Autopsy, four hours after death. Subject of medium size. No petechiæ (a few spots had appeared, during his illness, upon the left forearm). No rigor mortis. *Head*—Dura mater healthy; upper surface of brain slightly engorged; on the base of the brain, around the origin of the nerves of sense, and upon the medulla oblongata especially (sheathing this latter completely), was observed a deposit of consistent, pus like lymph of about two lines in thickness, extending also into the crevices of the brain and cerebellum. On opening the ventricles, a gush of dirty, semi-opaque fluid exuded, and, at the bottom and posterior parts, flakes of lymph were seen. The right lateral ventricle contained, in its posterior part, about a drachm of this lymph-like matter. *Chest*—Heart normal. The left lung of slate color, and has on its posterior aspect a

hepatized look and feel. Bronchiæ filled with tenacious lymph-like substance, of a consistency sufficient, in some parts, to be drawn out by the forceps. The lung, indeed, was in a state of red hepatization. *Abdomen*—Stomach healthy. Liver of normal size, a little congested. Gall-bladder distended with dark fluid bile. Kidneys natural. Spleen very small, not congested, of lighter color than natural. Peyer's patches natural.

Case VIII.—D. N. H., a private, 18 years of age, was admitted to Hospital on the 13th of January. His previous circumstances and condition, according to the statement presented by his regimental surgeon, Dr. Kneeland, were as follows: "Patient was of nervous temperament and of rather slight figure—had always enjoyed good health up to the present time. In the forenoon of January 28th, had a slight chill, which was succeeded by violent headache and pain in back and limbs; he had slight epistaxis; urine was scanty and high colored. ℞. Ol. ricini, ℥ i. ℞. Spts. eth. nit., ʒ i., every two hours.

"29th.—No better; all symptoms increased in severity; complains of ringing in ears; pulse full and frequent; tongue furred; some cough. Treatment continued."

30th.—Had, on admission to Hospital, the following symptoms: Skin hot and dry; severe headache, particularly in occipital region; head thrown back; tongue dry, and dark colored in centre, with white edges; abdomen natural; extremely violent delirium. ℞. Liq. ammon. acet., spts. eth. nit., aqua camph., aa ℥ i.; chloroform, ʒ ss. M. S. ʒ ii. every two hours. Sinapisms to feet. Beef-tea and farinaceous diet.

31st.—Rather more quiet. Symptoms, with the exception of delirium, quite as marked as yesterday. Rather profuse epistaxis. ℞. Ol. terebinth., ʒ iv.; syr. simp., ℥ i. M. S. ʒ i. every three hours.

Feb. 1st.—No better; slight diarrhœa; pulse 124, less full. ℞. Quiniæ sulph., ʒ ss.; acid. sulph. arom., gtt. xv.; aqua font., ʒ x. M. S. ʒ i. ter in die.

2d.—Delirium less active; expresses himself better; diarrhœa increased. ℞. Plumbi acet., gr. xviii.; opii pulu., gr. v. M. Div. in pil. No. vi. S. One after second discharge.

3d.—About the same as yesterday; cough rather troublesome; sibilant rales heard over both breasts; sordes on teeth. ℞. Pulv. ipecac. es opii, ʒ ss. Div. in ch. No. 6. One every four hours. Continue treatment.

4th.—Febrile symptoms very much diminished; pulse 100, weak; skin cool and moist; answers quite readily. Omit prescription of January 30th. ℞. Vin. alb., ℥i., every four hours. Continue treatment.

5th.—Much the same as yesterday; gurgling in the right iliac fossa. Continue treatment.

6th.—Seemed rather stupid; muttering delirium; no diarrhœa. Omit prescriptions of Feb. 2d and 3d.

7th.—About the same; rather weaker; several spots on abdomen. Increase wine to ℥iss. every three hours.

8th.—Comatose; does not answer questions. Continue wine, turpentine and quinine.

9th.—No better; pulse 90, rather weak; tongue discolored, dry and thickly furred. Continue treatment.

10th.—Died at 4 o'clock P. M., apparently but little exhausted.

11th.—*Autopsy*, fourteen hours after death. *Head*—Slight injection of vessels of cerebral membrane. Lateral ventricles of brain distended with fluid mixed with a purulent-looking substance. On the inferior aspect of the cerebellum and medulla oblongata was a copious deposit of lymph, from one-fourth to three-eighths of an inch in thickness, having a lobulated appearance and being quite firm. There was also a slight deposit of lymph in some of the fissures. *Thorax*—Heart normal. Lungs healthy, with exception of slight congestion of posterior lobes. *Abdomen*—Liver, stomach, spleen, pancreas, kidneys and bladder natural in size and healthy. Peyer's glands very much thickened, and, in one or two instances, ulcerated. The solitary glands somewhat enlarged.

Further illustrations will be given in a future paper.

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In its *mode of attack*, the disease was commonly sudden and without premonition, the patient, for the most part, continuing on duty and making no complaints till the very day of his seizure. Some of the most violent cases thus commenced; Case XII, previously cited, is in point, where the soldier appeared with his company at the evening dress parade, complained of chilliness, headache, &c., during the night, and was dead within thirty-six hours following. And the subjects of the disease, in most cases, were those previously in the full-

ness of robust health—between the ages of 18 and 24—who had endured hardships and exposures with impunity.

The *symptoms* were, at the first, headache, referred oftentimes to the back part of the head particularly, with dizziness—pain in the back and limbs, this last occasionally of an excruciating character—with sometimes rigors, and nausea and vomiting. Chilliness, rather a well-defined chill, characterized the accession of the disease. A peculiar stiffness in the muscles of the face and neck was often an early symptom; this would be followed by local spasms, perversion of vision, &c. In some cases the initiatory symptoms were those of a severe cold, with a disposition to paralysis of the tongue and a portion of the muscles of the face. With this the respiration would be difficult and irregular, giving occasion to fear a congestive attack of the lungs. There was often tenderness at the nape of the neck and along the spine early in the disease. The skin was usually moist, but hot. The face was suffused—often of a dusky hue—and the features distorted in the manner before mentioned—the eyes congested and suffused. There was not, for the most part, active delirium—but perversion of intelligence rather, and dullness and indifference to outward objects, from which condition the patient could be roused and made to answer questions consciously. The tongue had, at first, a white creamy coat, which, in the course of the disease, became yellowish or brown at centre and base, more rarely dry and cracked towards the close. There was loss of appetite, but usually not very urgent thirst. The heart's action was irregular, sometimes tumultuous, to which the pulse did not always respond, being mostly accelerated, but not strong—occasionally intermittent. The bowels were regular, or inclined to diarrhœa and costiveness by turns. Petechiæ were not an unfrequent manifestation—in appearance almost identical with the true typhus eruption, and like that seen upon every part of the body except the face—persistent on pressure, varying in hue from the darkest aspect of the measles to that of the true petechial spots imbedded in the skin. Purpural spots, abundant and of large size, were sometimes present, and were always a grave symptom. There was no marked tenderness of the epigastrium or abdomen. In the cases of longer duration, there was, in the last stages, sordes on the teeth and lips, and involuntary evacuations of urine and fæces. The patients often die without much symptoms of exhaustion. The decubitus was mainly on the side, with the head not unfrequently thrown back—the neck rigid and stiff

—a partial opisthotonos. There was uniformly great restlessness and jactitation. As an accompaniment and occasionally a sequel to the disease, iritis was several times observed. So, also, was synovitis—and, in one instance, pericarditis. The above are among the more prominent and constant symptoms —but there was a considerable diversity in the manifestations of the disease during its progress, whether towards a favorable or fatal result; in no one case do I remember to have seen even a majority of those I have enumerated present.

Singular and anomalous symptoms were sometimes noticed. Dr. Jewett, Surgeon of the 51st Mass. Regt., to whom I am indebted for a clear and able account of the disease, as it occurred in the troops under his care, reports that, "in a single case, a pleasing delirium was noticed, with loquacity and decidedly erotic desires, accompanied with priapism more or less extensive during the greater part of the disease." This peculiarity, he adds, was noticed in about one-third of his cases. Dr. Cowgill alludes to the same fact. Dr. Jewett noticed the decubitus upon the dorsum among fourteen cases which occurred in the 51st Mass. Reg. in but a single instance. "In all the others," he observes, "the patients lay upon the side till near the close of life." "In a few cases, and those the most severe ones," he also remarks, "no moan or sound of any kind escaped the patient, but there was a fearful restlessness which ceased only at death; in others there was much moaning." Stiffness of the muscles of the face, before alluded to, amounting at times to spasm, was almost pathognomonic. In some form, this affection was present in nearly all the cases sent in by Dr. Ware; it was common in those treated in Academy Hospital. Dr. Jewett speaks of it as being present in fully one-third of the cases which came under his observation, "there being," as he says, "more or less stiffness of the muscles of the neck and back, with opisthotonos—in one case paralysis of the glosso-pharyngeal nerve, and in two others eversion of the eyes and occasional squinting."

The *duration* of the affection varied from a period of less than thirty-six hours, to that of three, four or six weeks, and even longer. According to my own observation, the more usual duration has been from three or four to seven days.—*Boston Medical Journal.*

STRYCHNIA AS A POISON.

By THOS. D. MITCHELL, M. D., Professor of Materia Medica and Therapeutics, in Jefferson Medical College, Philadelphia.

But a few years ago, no antidote for the poisonous action of strychnia was known, the treatment being purely remedial, and in no sense, chemical. The spasms or jerks were often attempted to be controlled by what we usually style, antispasmodics, and such articles were passed into the stomach as are called demulcents, emollients and the like. As a matter of course, the patients generally died, after a brief period of terrible suffering.

In later years, the use of this poison has very greatly increased, partly because of the smallness of the dose, and partly because of the easy methods of concealing its administration. The multiplication of cases, however, has led to a more perfect understanding of its action, and the means of controlling its fatal tendency have had a corresponding increase, so that now we have abundant facilities for meeting the worst cases.

It not unfrequently happens that an individual who has attempted self-destruction by this agency, very soon after the poisonous symptoms develope themselves, announce the reality of his condition, so that the poison being certainly known, we have no difficulty in combatting it. In other cases, no such information can be had, and then we must rely on those marked, prominent signs present, which no practiced eye can ever mistake. The *tetanic jerks or spasms* speaking for themselves, need no interpreter. The physician who is rightly informed understands all this, and decides on instant and vigorous action. He empties the stomach at once, by repeated use of the pump, or by means of a prompt emetic, as of ten grains of sulphate of zinc or sulphate of copper, every ten minutes, until the organ is thoroughly evacuated.

As to the query, "how much strychnia will kill an adult," no fixed answer can be given. Very much depends on the fullness or emptiness of the stomach at the time of swallowing the dose, not a little likewise is due to the previous habits of the patient, the morbid or healthful state of the system, &c. But when a physician is at the bedside of one who is actually under the influence of the poison, after evacuating the stomach

as fully as may be, he must lose not a moment in administering the antidote.

The following facts are recited in my lecture on strychnia, at every session, and are now presented to the public in a group, for the purpose of furnishing the profession at large, with an array of means that will be found entirely adequate to any emergency.

Tannic acid and iodine were, for a time, almost the only proper antidotes in use. Both have succeeded, and are therefore reliable. *Braithwaite's Retrospect*, *part* 42, *page* 311, has evidence in point. The acid may be given dissolved in water, *ad libitum*; at least an ounce should be put in a quart of water, to be drank freely and largely. The use of it forms an insoluble and inert tannate of strychnia.

The tincture of iodine has also proved decidedly antidotal. Give twenty drops in mucilage of gum arabic or sugared water, at once, and in ten minutes after, thirty drops, and, if need be, forty drops for the next dose. This administration controls the spasms, and the patient is safe. An insoluble and inert hydriodate of strychnia is formed in this instance. See *Braithwaite*, *part* 41, *page* 62.

The *Vermont Caledonian*, July, 1857, says that ninety grains of strychnia were swallowed by a man, in half a pint of strong gin, without his knowledge that the poison was present. As soon as the discovery was made, an emetic was resorted to, and recovery ensued. In this case, we have a manifest instance of the antagonism of poison to poison. The gin alone was competent to kill, and no one can doubt as to the potency of such a mammoth dose of strychnia, *per se*.

A case not very unlike the above is also given. A man who was perfectly drunk under the use of rum, swallowed sixty grains of strychnia at a dose. He recovered. In this instance, as in the other, the alcoholic spirit and the strychnia were antagonistic poisons, either alone having abundant power to kill. Ordinarily, one grain of the alkaloid would destroy life, if there existed no morbid condition to counteract it.

Camphor has also been found to have an antidotal power; how, in a strict chemical sense, is not, perhaps, well understood. Dr. Claiborne, of Petersburgh, Virginia, reports the case of a man aged thirty, who took two grains of strychnia. In forty minutes he was seen to be laboring under severe jerks or spasms, which continued nearly two hours, almost incessantly. Respiration and deglutition were nearly impracticable. Very large doses of camphor were exhibited, amounting altogether to 60 grains in less than an hour. Recovery ensued.

Sulphate of morphia is another antidote, and, of course, opium would prove so. In the *Western Lancet*, Dr. Phillips gives the case of a lady who was poisoned by swallowing three grains of strychnia at a dose, in mistake for sulphate of morphia, which she had long used for a spasmodic affection, and the dose of which had been gradually augmented. On making the discovery, the lady was placed in a very warm bath, and in less than two hours, she was made to swallow five grains of the morphia salt. The action of the poison was completely arrested and she recovered.

Chloroform was resorted to by Dr. Jewett, of Boston, (see *Boston M. and S. Journal*) in a boy aged 15, who in mistake swallowed two grains of strychnia. Medical aid was not procured until half an hour after the accident, when the jerks were violent and deglutition almost impracticable. He was relieved by the inhalation of chloroform, for ten minutes, and partial anæsthesia kept up for four hours saved him.

The case reported by Dr. O'Reilly, of St. Louis, is too well known to be detailed here. He saved a patient fully poisoned by strychnia, by the exhibition of table spoonful doses of tobacco. The following experiments, reported in the Dublin *Hospital Gazette*, Dec. 8, 1856, are in point: Two baths were made, each having five ounces of water, one of them five grains of strychnia, the other five grains of pure nicotina (a most terrible poison and the proximate principle of tobacco). In one of the baths, a frog lived four minutes. A similar frog put in the other, lived one minute. The two baths were then mixed, so that the water now held the strychnia and nicotina in solution. A frog, in all respects like the others, was put into the mixed bath and appeared to be very little injured at the end of 47 minutes, and it did not die till 24 hours had elapsed. The antagonism of the strychnia and nicotina is so obvious, that we need not stop to speak of it.

Still more recently we have an account of the antidotal power of *Hydrocyanic Acid* in the *Medical Times and Gazette* of August 6, 1859. We remark, in passing, that this acid is more speedily fatal than strychnia.

A physician owned a favorite dog, now become mangy and so offensive, that it was decided to kill him with strychnia. An ample portion was given to the beast, but it only set up terrible jerks, without speedily killing, as was anticipated. To relieve the dog from his torture, a drachm of strong hydrocyanic acid was given in a saucer of milk. The whole was lapped up speedily, and soon the animal vomited, got on his legs,

ran off a considerable distance and recovered. Here was a most obvious antagonism.

The last antidote to be named is *Arsenious Acid.* On the next day after my lecture on this subject, thre years ago, Surgeon Judson, of the U. S. Navy, handed me a printed slip, taken from *Bell's Life in Sydney*, which shows conclusively, that so terrible a poison as arsenic can control the poisonous action of strychnia. A farmer's grounds were much infested with crows, and to get rid of the pest, he shot an opossum, cut into its body and placed in the cavities a large quantity of strychnia. The opossum thus prepared was hung to the fork of a tree. A favorite sheep dog, attracted by the stranger in the tree, made out, by vigorous efforts, to grasp it, and then to eat freely of the meat. Very soon, he was thrown into tetanic jerks of great severity. The owner resolved to put a period to the animal's suffering by the use of arsenic, a large spoonful blended with water was passed down the throat. Presently the dog was evidently more quiet; the jerks soon ceased, and in one hour recovery was complete.

In this brief paper we have no less than ten articles, each of which is capable of counteracting the poisonous action of Strdchnia, viz: Gin, Rum, Tannin, Iodine, Sulphate of Morphia, Chloroform, Tobacco, Hydrocyanic Acid, Camphor and Arsenic.

Purposely, we have passed over the *modus operandi*, as well as the tests of strychnia, partly because these are of less practical moment to the profession at large, than the immediate treatment of cases; and also because those points have been, as we think, fully met by the wide publication of the celebrated *Palmer* case (in London), and by the numerous essays growing out of that affair. Our main design was to furnish practitioners with such a birds-eye view of the reliable means for the arrest of the poisonous action of strychnia, as can be foond in no volume known to the profession.

Before we dismiss this interesting subject, it may be well to group the points involved in the question, "how much of any poison is competent to destroy life?" This is the more important in view of the obvious lack of information just here.

The points that cross our path in attempting a direct answer to the question cited are:

1st. The purity or worthlessness of the article. Ten drops of Croton oil, we are told, did not seriously hurt a child ten years old, although given at one dose. The oil, however, was very largely adulterated with another oil, and so made harm-

less. So too, spoiled digitalis leaves, or leaves from a plant raised in soil unfriendly to its perfection, are inert in any dose. Extract of belladonna, utterly decomposed by excessive heat employed in its preparation, would hurt no one in drachm doses.

2d. The condition of the stomach, as to fulness or emptiness. Two men, of the same age and vigor took each an ounce of laudanum on the same day. Both had medical aid in two hours after the accident. The one died, while the other speedily recovered. The full stomach of the one and the empty stomach of the other, accounted for the difference. The one took the poison an hour before the usual dinner time, the other, an hour after he had dined.

3d. The presence in the system, either in the body or mind, of a potent counter-agent, calculated to antagonise the poisonous dose.

The antidotes, named above, for a poisonous dose of strychnia, are in point. The strychnia and the antidote were mutual antagonistics. So too, the case reported in a foreign journal many years ago, of a medical student who, in a fit of desperation amounting to insanity, swallowed twenty grains of acetate of morphia. The terrible mental excitement of the man absolutely controlled the agency of the mammoth opiate dose, and he was restored although not visited until two hours had elapsed. The presence of a full dose of liquid chloride of soda in the stomach of the *Fire King* or American Buffoon as he was called, saved the man from the poisonous action of a drachm of hydrocyanic acid swallowed in the presence of hundreds of wondering spectators, and it is on the very same principle that alcoholic spirit taken until complete intoxication results, is a well known expedient to save life after the bite of the most venomous serpent. The bane and the antidote are perfect antagonists. While, therefore, one grain of any known poison might kill an adult in full health and with an empty stomach, another person of the same age might swallow, with comparative impunity, ten or twenty grains of the same poison, under circumstances such as those above stated.

1009 Clinton St., May, 1863.—*Canada Lancet.*

☞ Business letters to the JOURNAL should be addressed to Dr. E. INGALS, Chicago, Ills., P. O. Drawer 5787. When money is received a receipt will be returned with the next number of the JOURNAL, and subscribers failing to get such receipt will confer a favor by giving us notice of the omission.

MEETING OF THE "AMERICAN" MEDICAL ASSOCIATION.

Agreeably to the notice issued by the Chairman of the Committee of Arrangements, several of the States were represented in a convention in this city Tuesday, June 3d inst.

The convention was called to order at 11 o'clock by Wilson Jewell, of Pennsylvania, the First Vice President of the Association during the last three years. Officers occupied seats on the platform, with the exception of the President, who is deceased, and those from the seceding States. The following are the gentlemen who have held office since the year 1860:

President—Eli Ives, Connecticut.

Vice Presidents—Wilson Jewell, Pennsylvania; A. B. Palmer, Michigan; R. D. Arnold, Georgia; Joseph N. McDowell, Missouri.

Secretaries—S. G. Hubbard, Connecticut; H. A. Johnson, Illinois.

Treasurer—Caspar Wister, Pennsylvania.

Rev. R. L. Collier, pastor of the Wabash Avenue Methodist Episcopal Church, then invoked the Divine blessing upon the deliberations of the association.

The chairman of the Committee of Arrangements then welcomed the delegates in attendance, and read a report for the committee, giving their reason for its postponement the two previous years, and his for its assemblage at the present time. The report was adopted. The following delegates reported:

Vermont—G. N. Stiles, Lewis Emmons.

Massachusetts—Henry Cutter, Appleton Thorne, Edward Barton, James P. Lynde, Ebenezer Stone, P. J. Kendall, Benj. E. Cotting, Joshua Homans, John C. Dalton, M. D. Southwick, E. P. Abbe, John Green.

New York—Henry G. Davis, Guido Furman, Alden March, Daniel P. Bissel, James S. Whaley, Thomas C. Brinsmade, J. S. Sprague, C. C. F. Fay, Edward Hook, E. S. F. Arnold, E. W. Cherry, W. N. Blakeman, Howard Townsend, H. Nicholl, E. Tobie, H. S. Downs, C. C. Wyckoff, Alf. Underhill, J. H. Griscom, L. B. Cotes, Julius Homberger, C. H. Harvey, James McNaughton, Danl. Holmes.

Connecticut—Stephen G. Hubbard, L. N. Beardsley, B. H. Catlin, A. W. Barrows.

New Jersey—Wm. Pierson, Jr., D. M. Sayre, John Blain, Isaac S. Cramer.

Delaware—H. F. Askew, James Cooper.

Pennsylvania—Wilson Jewell, Wm. Mayberry, Edward Wallace, B. Richardson, John R. Thomas, E. H. Mason, Wm. L. Richardson, T. N. Trotz.

Virginia—J. C. Hupp.

Ohio—W. S. Battles, J. M. Taggert, W. W. Jones, A. H. Agard, K. G. Thomas, S. O. Almy, L. N. Lawson, W. B. Davis.

Indiana—B. S. Woodworth, A. M. Vickery, A. J. Erwin, A. P. Ferris, L. D. Personett, James Ferris, S. A. Freeman, L. D. Glazebrook, James F. Hibbard.

Michigan—A. B. Palmer, E. A. Egerry, H. O. Hitchcock, S. D. Richardson, Lewis Davenport.

Illinois—E. L. Holmes, Geo. K. Amerman, Edward Andrews, John Ten Broek, C. R. Parks, T. D. Fisher, Geo. W. Hall, David Prince, E. Andrews, N. Wright, W. O. Chamberlain, J. P. Ross, E. A. Steele, A. Fisher, M. J. Johnson, J. H. Hollister, D. Pierson, M. F. Dewitt, S. Wickersham, J. D. Rose, Henry Wing, Chas. Gorham, S. W. Noble, L. A. Hatch, T. F. Worrell, T. P. Haller, H. A. Johnson, R. Spitler, G. Paoli, H. Noble, D. M. Tarker, Orrin Smith, A. J. Craine, T. K. Edmiston, J. J. Lulee.

Wisconsin—Chas. L. Stoddert, H. Adams, Hermon Van Dusen, E. S. Carr, Geo. D. Wilber.

Iowa—J. W. H. Baker, Samuel C. Lay, Jos. Sprague, D. L. McGugin.

Kansas—D. W. Stormont, C. A. Logan.

Tennessee—W. K. Boring.

Army and Navy—C. C. Cox, G. Simpson, A. R. Terry, John B. Porter, Benj. Palmer, M. K. Taylor, Ralph Isham.

The secretary then stated that the delegates could procure free return tickets by connecting themselves with the great canal convention, in session in the city, as delegates.

The delegates from the several States then resolved themselves into sub-committees, and appointed their representatives on the committee for the nomination of officers as follows:

Vermont, J. N. Stiles; *Massachusetts*, John Homans; *Connecticut*, L. N. Beardsley; *New York*, Jos. McNaugeton; *New*

Jersey, John Blain; *Delaware*, H. F. Askew; *Ohio*, W. S. Battles; *Indiana*, James F. Hibbard; *Pennsylvania*, Wm. Mayberry; *Michigan*, H. O. Hitchcock; *Kansas*, D. W. Stormont; *Virginia*, John C. Hupp; *Iowa*, J. H. W. Baker; *Wisconsin*, H. Van Dusen; *Illinois*, H. Noble; *Tennessee*, W. K. Boring; *Maryland*, Dr. Cox; *The Army*, Josiah Simmons.

The retiring Acting President, Dr. W. Jewell, then delivered his valedictory address, in which he alluded to the present unhappy condition of the country; paid an eloquent tribute to the memory of the deceased President, Dr. Eli Ives; adverted to the history of the Association, and urged especially upon their attention the subject of Hygiene.

The address was exceedingly well received, and the thanks of the convention voted the author.

Drs. Walter Hay, Thomas Bevan, John McAllister, John Bartlett, M. O. Heydock, Neil P. Peterson, R. C. Hamill, H. N. Hurlbut, and H. Webster Jones, of Chicago; E. C. Lardner, of Vermont; S. W. Bicknell, Beloit; E. W. Jenks, of Sturges; Henry Durham, La Salle; Silas Earle, Onarga; and W. W. Sedgewick, of Sandwich, were elected permanent members, and the following as members by invitation: A. L. Merriam, Sandwich, Ill.; L. D. Glazebrook, St. Pierre, Ind.

The President then appointed Drs. Pearson, Beardsley, and Cutler, to draft resolutions expressive of the sense of the association respecting the death of the late President.

The convention then adjourned till 3 o'clock.

Afternoon.—The convention reassembled at 3 o'clock, and the Committee on Nominations was called upon to make their report. They recommended the following for officers:

President—Dr. Alden March, of New York.

Vice Presidents—Drs. James Cooper, of Delaware; David Prince, of Illinois; C. C. Cox, of Maryland; and E. S. Carr, of Wisconsin.

Treasurer—Dr. Caspar Wistar, of Philadelphia.

REPORT OF THE TREASURER.

The report of the Treasurer was read by Dr. Haskell, of Delaware, the Treasurer being unable to attend. He reported

that, owing to the unsettled state of the country and the advanced price of printing, it would be necessary to print only such papers as were of great value, and to condense those as much as possible, or the treasury could not bear the cost. The proceeds of volumes sold were $1,982.25. Balance on hand this year, $504.21. The report was adopted.

The Committee on Publication reported the result of their labors during the year and the number of volumes now in their possession. The report was accepted.

Samuel R. Percy, M. D., Prof. Mat. Med, &c., in the N. Y. Medical College, was announced as the author of an Essay to which the usual prize was to be awarded. Subject—Veratrum Viride and its alkaloid Veratria. Ordered to be printed in the transactions.

Dr. E. K. Squibb, of N. Y., was allowed until the next meeting to report on the "Practical Workings of the U. S. Law relating to the inspection of drugs and medicines."

Other committees were also continued.

Dr. A. K. Gardner, of N. Y., presented a paper on the "Use and Abuse of Pessaries."

The Committee on the Hunter Memorial reported $357 contributed in one-dollar subscriptions.

The Committee of Arrangements proposed the following gentlemen to be elected as permanent members:

Drs. Daniel B. Brengle, Manchester; Van Courtland Secord, Galena; J. B. Samuel, Carrolton; David Dodge, Chicago; James S. King, Lemont; D. F. Crouse, Mount Carroll; all of Illinois. The nominations were confirmed.

THE USE OF MERCURY BY THE ARMY SURGEONS.

Dr. Lawson called attention to the recent order of the Surgeon General prohibiting the use of mercurials and tartarized antimony by the army Surgical corps. He moved that the society express its disapprobation of the order. The subject was referred to a committee, with instructions to inquire into the facts and report, the committee to consist of one member from each state.

MEDICAL PROVISION FOR RAILROAD ACCIDENTS.

Remarks were then made by Dr. Arnold, of New York, on the necessity of making medical provision for railroad accidents. He distributed printed copies of papers read by him before the State Medical Society and the Academy of Medicine, both of New York.

ARMY SURGEONS.

Dr. Cox called attention to the want of a recognition of army Surgeons, and urged that relative rank should be accorded to them. At present it was not possible for a Surgeon to rise above the rank of major. He therefore offered the following resolution:

Resolved, That a committee of five be appointed by the chair to draft a memorial to Congress asking the enactment of a law by which Surgeons in the service of the United States army may be accorded relative rank in the same.

Resolved, That each medical gentleman present be urgently invited to use every proper influence with the members of Congress from his respective district, to urge the passage of a law, favorable to this object, at the ensuing session of Congress.

JUNE 3.—The following gentlemen were admitted as members of the Association, by invitation:

Dr. J. H. Foster, Libertyville, Ill.; W. G. Millar, Rockford, Ill.; J. A. Brown, Kankakee City, Ill.

The following permanent members of the Association were elected:

Tiffin Sinks, Leavenworth, Kansas; W. C. Hall, Fayetteville, O.; Hiram Wanzer, Chicago, Ill.; H. K. Dean, Maunkport, Ind.; H. C. Robbins, Newark, Ill.; E. J. Duffield, Woodstock, Ill.; W. Jaynes, Yankton, Dakota Ter.; C. M. Clark, Galva, Ill.

New York City was selected as the next place of meeting.

A committee was appointed to report on the army ambulance system.

A resolution on Compulsory Vaccination was referred to a committee.

The Committee on Voluntary Communications presented the abstract of a paper by Prof. E. Andrews, on "Diatheses—their Surgical Relations"—referred to Com. of Publication.

The meeting by sections was abolished.

AFTERNOON.—Dr. D. J. McGowan addressed the Convention on medical matters in China and Japan.

The following physicians were elected permanent members:

I. B. Buchtell, South Bend, Ind.; C. Truesdale, Rock Island, Ill.; W. R. Fox, Wilmington, Ill.; L. F. Warner, and M. Parker, of Chicago. Drs. L. T. Hewins, Oak Alla, Wis., and C. J. Taggart, Beloit, were elected members by invitation.

Dr. C. C. Cox, from the Committee on Medical Education, read an able scientific paper on the subject, reviewing the past history of the profession in this respect, and the absence of proper attention to the subject. Many valuable suggestions as to needed improvements, were also made. After the rendering of this report the Committee submitted the following resolutions, which after discussion were adopted:

Resolved, That a thorough preliminary education in English, Latin, mathematics and physics, constitutes an essential pre-requisite to the admission of a student of medicine into the office of a medical preceptor, or as a matriculent of a respectable medical college.

Resolved, That the advancement of medical education demands a more extended and symmetrical course of instruction in the colleges, and a more thorough and impartial examination for the degree of doctor of medicine than at present prevail.

Resolved, That Medical Jurisprudence and Hygeine are highly important branches of Medical Science, deserving the careful consideration of all medical teachers and schools.

Resolved, That societies for medical improvement—State, district and county, are important auxiliaries to the advancement and promotion of science, and are therefore highly recommended by this body, as valuable levers in the cause of medical education.

The Committee on the Surgeon General's Order (Dr. Lawson's motion) brought in a majority and minority report, which were respectively discussed in animated language.

JUNE 4.—The following gentlemen were admitted members by invitation:

Isaac Snyder, Jackson, Mich.; *R. B. Treat*, Janesville, Wis.

The following were admitted as permanent members: Granville S. Thomas, Joliet, Ill.; J. S. Pashley, Osceola, Ill.

Dr. Cox, of the army, announced the sudden departure of Dr. Wilson Jewell, of Pennsylvania, caused by receiving intelligence of the unexpected death of a son, and offered a resolution of condolence which was adopted.

Regular business being in order, the reports of Committees were taken up.

Dr. Gilbert, of the army, in behalf of the Committee on the Extinction of the Aboriginal Races, reported progress, and on motion, the Committee was continued another year.

The resolutions with reference to the Surgeon General's Order were taken up. Dr. Cox, of the army, explained the apparent necessity of the order. The discussion became general, but eventually the report of the majority of the committee, with their appended resolutions, understood to be from the pen of Prof. Lawson, the chairman, were adopted. The resolutions are as follows:

Resolved, That from evidence within our possession, we can but entertain the conviction that the Surgeon General of the U. S. Army has been led into expressions, in Order No. 6, which will convey errors respecting the abuse of calomel in the army, and we feel called upon to protect, so far as in our power, the reputation of the intelligent and self-sacrificing medical officers, from the implied imputation of such general mal-practice.

Resolved, That while regarding spanæmic medicines, particularly calomel and tartar emetic, when freely administered to soldiers in the field, the camp or hospital, where unfavorable hygienic conditions so commonly cause depressed and asthenic conditions of the system, as being very often productive of injuries; yet that these articles, when judiciously employed, are useful, is a proposition according with the general opinion of the profession; and as abuse of an article is no just argument against its proper use, it is, in the judgment of this body, to be regretted that the object of correct-

ing these abuses was not sought to be effected by an order of caution on the subject, and by dismissing from the service those disregarding such caution, and not by the extraordinary and, as we think, unjustifiable course of attempting to prevent, entirely, the use of articles, though liable to abuse, as are all other powerful agents, yet which are well established in professional confidence as capable of useful application.

On motion, it was resolved that a copy of the above resolutions be forwarded to the President of the United States, the Surgeon General United States Army, and the Secretary of War.

The Nominating Committee reported back the following officers of the Association for the present year:

Secretaries—Drs. H. A. Johnson, Ill.; Guido Furman, N. Y.

Committee of Arrangements—Drs. James Andrews, N. Blakeman, T. M. Markoe, T. C. Finnell, Austin Flint, Jr., E. S. F. Arnold, J. H. Griscom.

Committee on Prize Essays—Drs. D. F. Condie, Pa.; E. Wallace, do.; Wilson Jewell, do; E. R. Peaslee, N. Y.; Alfred Stille, Pa.

Committee on Medical Education—Drs. J. C. Dalton, N. Y.; M. L. Linton, Mo.; John Frissell, Va.; Howard Townsend, N. Y.; W. H. Byford, Ill.

Committee on Medical Literature—Drs. L. M. Lawson, Ohio; E. L. McGugin, Iowa; William Mayberry, H. Noble, Ill.; John Homans, Mass.

Committee on Publication—Drs. F. G. Smith, Chairman, Pa.; Caspar Wistar, do.; Ed. Hartshorne, do; H. S. Askew, Del.; S. G. Hubbard, Conn.; H. A. Johnson, Ill.; Guido Furman, N. Y.

Committee on Insanity—Drs. Ralph Hills, Ohio; C. H. Nichols, D. C.; D. P. Bissell, N. Y.; S. W. Butler, Pa.; John S. Butler, Conn.

Dr. H. G. Davis commenced reading a paper on "The American Method of Treating Joint Diseases and Deformities," which was referred to the Committee of Publication, and its further reading suspended.

Dr. Hamburger read a paper upon the use of the laryngoscope, exhibiting the instruments, and another upon a case of disappearance of the iris behind the lens. Referred to Committee of Publication.

The paper of Dr. Griscom, on a case of diarrhœa adiposa, (read on Thursday afternoon,) was, on motion of Dr. Furman, referred to the Committee of Publication.

Dr. A. Fisher read a paper on the use of the sulphites of lime and soda in the treatment of hospital gangrene, phlebitis, erysipelas, and other zymotic diseases. On motion, the paper was referred to a committee of three, of which the author is chairman, to continue his investigation, and report next year.

Dr. Cox, of the Army, offered two resolutions—one of thanks to the citizens of Chicago, for their kindness and hospitality shown to the members of the Association during its sessions here, and another of thanks to the retiring Secretary, Dr. Hubbard, for his able and faithful services.

The amendments to the Constitution of the Association, proposed at the last meeting, were called up and discussed, and so far carried as to fix the time of the next meeting on the first Tuesday of next June.

A complimentary resolution, thanking the President and Secretary for their services, was adopted.

The following gentlemen, on motion of the Committee of Arrangements were elected permanent members of the Association:

L. H. Cary, Toledo, Iowa; Horatio Hitchcock, Chicago; L. F. Warne, do.; L. P. Cheney, do.; C. W. Shumway, do.

Afternoon.—Several committees were allowed further time to report. Dr. N. S. Davis offered an amendment to the Constitution, providing for the election of a Permanent Secretary.

The following resolution was offered by Dr. Arnold and passed:

Whereas, The railroad is fast becoming the great medium of land travel in all parts of the world; and whereas, in spite of all regulations and care, serious accidents are continually occurring, attended with loss of life, such being greatly augmented by the total want of any local medical provision to meet such, as well as by the absence of any appliances what-

ever, calculated to strengthen the hands of the surgeon; therefore, be it

Resolved, That such medical provision should be made by railroads; that by the diminution of suffering, as well as by the saving of life, while economy would acrue to the railroad companies, the interests of humanity would be greatly served.

A lengthy memorial was received and read from the special committee appointed to address Congress in relation to the rank and the pay of army surgeons. On motion, the report was accepted and adopted.

On motion, the Secretary was instructed to have the memorial printed, and to send copies of the same to public officers at Washington.

After some further proceedings of an informal nature, the Convention adjourned.

EDITORIAL AND MISCELLANEOUS.

The Surgeon General's Order—Calomel and Antimony.—We admit to our pages, the present number, an earnest protest against the recent remarkable order of the Surgeon General. The writer wears a name well known to the profession—one which it has delighted to honor, and his remarks are worthy of full consideration. We reserve at present any comment either upon the famous order or the observations of our correspondent. Only these things we must be permitted now to say:

Our readers will bear us witness that; from the hour Nurse Yates sent a communication to the *Chicago Tribune*, calling upon the benevolent for a donation of rags to absorb the abominable flux from the salivation of the soldiery at Cairo, we have ever opposed this infernal practice in the army.

In our place in Rush Medical College, as teacher of the Practice of Medicine (and we know the Professor of Surgery has done the same), we have inculcated principles wholly at war with this prostitution and abuse of these energetic remedies.

So long as the standard treatises on the Practice of Medicine, at the head of which in this country stands that of Wood, inculcate scarcely any other treatment for disease save blood-

letting and other antiphlogistics, with mercurialization as the constant agency, the actual cautery must be applied to check the spread of this phagædenic ulcer of the medical body corporate. It is a bold and radical measure—we are not to-day prepared to say it is wholly unwarrantable. Let it be observed—the use of these potent remedies is not interdicted, and we are not now ready to say that either of them has "virtues which plead like angels trumpet-tongued against the deep damnation of their taking off"—from the "supply table." But more anon.

Meeting of the "American" Medical Association.—Medical gentlemen representing several of the States met in this city a few days since, and nominally constituted a convention of the American Medical Association. Many of those in attendance supposed that the bold responsibility assumed by the Chairman of the Committee of Arrangements, was warranted and compulsory upon the organization. Others feared that if the meeting failed in point of numbers it would prove the funeral of the Association, and to prevent this they smothered their objections to the irregular usurpation of power which called the meeting, and met with the rest.

We shall have something to say about this meeting in a subsequent number of the Journal. *Now* we only say these things:

Meeting socially a large number of the delegates in attendance, we found but very few who did not regret the convening of the association at this time.

No important object whatsoever was accomplished by the gathering. There never has been a meeting of the association so generally ignored by the leading members of the profession throughout the country.

Its prominent act was a wholly gratuitous attack on the Sorgeon General of the Army, an action which in its animus and results can only tend to bring the profession into contempt.

Politics and the canal convention were more talked and considered than medicine. Nevertheless, it still illustrated the strong good sense ,which is the glory of the profession by developing its opinion of the course taken by certain parties to this ill-timed call—even ignoring all precedent and custom in electing to offices and appointing to committees, only those who had nothing to do with the call. Truly, "the engineer was hoist with his own petard."

Intra-Uterine Injections.—Several recent cases of sudden death from intra-uterine injections have attracted the attention, not only of the profession at large, but even of the specialists. The same time it was supposed that the death resulted from the passage of the fluid or air into the abdominal cavity through the Fallopian tubes. More accurate observations have shown that it arose from introduction of air into the uterine sinuses.

The abortionists ascertained by fatal experience that puncturing the membranes was not only uncertain and tedious, but liable to the disagreeable accident of puncturing the uterus or even the iliac artery. The better posted class thereupon resorted to injections of carbonic acid, of air, of water or other fluid—the result was in either case now and then a death suddenly—in the first two cases from intentional introduction of air into the uterine cavity, and in the second place from defective apparatus or manipulation.

We have the details of a case occurring in a large interior village of an adjoining state, a few weeks since, where the abortionist went to the house (at the request of husband and wife conjointly) and in half an hour thereafter the patient breathed her last. *Ten minutes after the abortionist went into the room to manipulate, the patient was dead. Post mortem* proved the presence of air in the heart. It came out at the Coroner's inquest that the brutal quack (not a physician though practicing as an *ismatic*) introduced a catheter or uterine trochar into the uterus and just before withdrawing it *blew forcibly through it into the uterus.* The victim immediately screamed out, became livid in the face, gasped and was dead. This was the rascal's own confession to the husband on the spot. Details of the case will be given after the case has gone upon its trial in the criminal court.

Books Received.—Cazeaux's Midwifery; Bond's Den al Medicines; Bowman's Medical Chemistry; Medical Student's Vade Mecum; Headland's Action of Medicine; Packard's Minor Surgery; Hamilton on Fractures and Dislocations. Notices next month.

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ORIGINAL COMMUNICATIONS.

A CASE OF PYRAMIDAL CATARACT.

By E. L. HOLMES, M. D., of Chicago.
One of the Surgeons of the Chicago Charitable Eye and Ear Infirmary.

In January last, a young man, nineteen years of age, and apparently of a scrofulous diathesis, consulted me in reference to his left eye. I found the lids with evident signs of former inflammation, the conjunctiva being atrophied and replaced to a certain extent, by cartilagenous substance; there was also a tendency to trichiasis, although none of the cilia rested upon the cornea. In the centre of the cornea appeared a small opaque cicatrix, around which was a very narrow circle of extremely delicat and almost perfectly transparent nebulous deposit. From this central opacity ran two superficial vessels upwards to the conjunctiva. The other portions of the cornea were perfectly transparent. The whole capsule of the lens was opaque, as could be seen on dilating the pupil with atropine. The most remarkable feature of the case was the presence of a pyramid or cone of opaque substance, with its base attached to the lens and filling the pupil (when contracted by light), and its apex attached to the central cicatrix, of the cornea.

The base of this cone appeared to be a little less than a line in diametre. The distance from the pupil to the cornea might be possibly about two lines. The two superficial vessels mentioned above seemed to enter the anterior chamber through the cicatrix, and pass along the upper and outer side of the pyramid, into the lens. Whether the dark lines along the side of the cone were vessels, I am unable to decide positively. A single fact, however, which I will soon mention, inclines me to the opinion that they were. There was reason for believing the iris must necessarily be attached to the lens. But on introducing a few drops of solution of sulphate of atropia under the lids, the pupil became *fully and regularly dilated.* The presence of a few minute dark spots on the lens near the base of the cone, resembling detached portions of pigment from the iris, would seem to indicate that there had been slight adhesions, which the ordinary motions of the muscular fibres of the iris had detached.

The patient gave the following history of his case. At the age of three years he was attacked with inflammation of the eyes, which rendered the left eye almost useless and permanently diminished, to a considerable extent, the vision of the right one. The latter, seven years after, was totally destroyed by inflammation. When he was eight years of age, it was discovered that the left eye was affected with cataract. The lids were still somewhat granulated, and the cornea vascular; but they continued to improve in appearance, being subject, however, at intervals, to slight increase of congestion. The patient was considered incurable, and at the age of fourteen was placed for three years in the Michigan Institution for the Education of the Blind. About two years since, the presence of the pyramid connecting the lens and cornea, was observed. How long it had existed was a matter of doubt to physicians who had been able from time to time to examine the eye.

I am disposed to believe that during the first attack of inflammation, a small central ulcer perforated the cornea and caused the escape of the aqueous humor. The iris and lens

were consequently brought in contact with the cornea. As the ulcer healed, a firm union between the cornea and centre of the lens took place, which prevented further escape of the aqueous humor. As the anterior chamber became filled, the iris and lens were restored to their normal position. It can be readily understood, as the lens receded, how the capsule must naturally be put upon the stretch and drawn out into the form of a pyramid. The substance of the pyramid was undoubtedly to a great extent composed of lymph, since, although the central portion of the capsule seemed drawn forward, the pyramid itself seemed to be some foreign body fastened upon the capsule. We believe such an adhesion as above described could seldom occur without involving a portion at least of the pupilary edge of the iris.

As the patient was totally blind, an operation seemed perfectly justifiable, although the condition of the lids and the tendency to conjestion from slight causes might possibly increase the danger of subsequent inflammation. At the patient's request, and with the advice of his friend and physician, Dr. Eugene Bitely, of Paw Paw, Michigan, I dilated the pupil widely with atropine and introduced a needle through the sclerotic. After depressing the needle from above downwards between the lens and iris, I carried the point into the anterior chamber nearly to the cornea and easily divided the cone as near its apex as possible. The needle had been passed betweent the lens and iris without the appearance of a drop of blood. At the moment of the division of the pyramid, however, a minute quantity of blood followed the point of the needle, which fact seems to prove that the superficial vessels of the cornea above mentioned really passed through the cornea into the substance of the pyramid and lens. As the needle was withdrawn, it was pressed through the capsule, when the anterior chamber was filled with a milky fluid and small fragments of the central portions of the cataract. After the operation the pupil was kept dilated with atropine, and

fortunately, in a few days, the congestion produced by the operation partially subsided and the patient returned home.

A couple of weeks since I had an opportunity of examining the eye. The two vessels of the cornea had nearly disappeared; a very small portion of the apex of the pyramid could be seen projecting from the cornea into the anterior chamber. A small fragment of the cataract had fallen to the lower and outer portion of the anterior chamber. As the eye had entirely recovered from the effects of the operation, there seemed to be little reason to fear any harm from the presence of this portion of the capsule, especially as Dr. Bitely informed me it was gradually diminishing in size. The pupil was perfectly clear, and but for the presence of the central opacity of the cornea, the patient would undoubtedly see as well as any one could see, after an operation for cataract.

He was able to read the ordinary large letters on the title pages of books. At a distance of fifty or sixty rods he could distinguish the masts and rigging of vessels lying in the harbor. With the assistance of a double convex lens No. XX, he found distant objects much better defined, although no lens enabled him to read ordinary print. Undoubtedly an operation for artificial pupil or for removing the pupil to one side by iriddesis, would greatly improve vision. As the patient was already so well pleased with the result of the operation, and could conduct himself without difficulty wherever he chose to go, it was thought best to leave the eye for a time in its present condition.

Pyramidal Cataract, especially in the form above described, is a rare form of disease. In the eye clinics of Paris and Vienna, which I attended faithfully for nearly two years, I never observed a case similar in any respect to the one here reported. In my own private practice, with more than fifteen hundred registered cases, I have seen nothing analagous to it. I may, however, with propriety, perhaps, refer to the case of an Irish woman, aged thirty-three years, who consulted me in reference to one of her eyes. In the very centre of the

cornea was an extremely minute white opacity, appearing as if a small particle of carbonate of lead had been involved in the cicatrix of a former ulcer. In the centre of the pupil, also, on the anterior capsule of the lens, was a spot precisely of the same description. The patient could give me no satisfactory account of the case, but informed me that in infancy she suffered from a severe attack of "sore eyes." Probably a perforating ulcer of the cornea caused the evacuation of the anterior chamber, when the centre of the capsule of the lens came in contact with the cornea. A small deposit of lymph was formed upon the capsule of the lens, without producing, however, a firm adhesion. As the ulcer healed, the lens was restored to its natural position, with no trace of disease remaining in the eye, except the minute opaque spot on the lens and cornea.

In this manner, we believe, nearly all the so called central anterior capsular cataracts are formed.

SELECTED.

ON FORCE.

From a Lecture by Prof. TYNDALL, before the Royal Institution.

We all have ideas more or less distinct regarding force; we know in a general way what muscular force means, and each of us would less willingly accept a blow from a pugilist than have his ears boxed by a lady. But these general ideas are not now sufficient for us; we must learn how to express numerically the exact mechanical value of the two blows; this is the first point to be cleared up.

A sphere of lead weighing 1 lb. was suspended at a height of 16 feet above the theatre floor. It was liberated, and fell by gravity. That weight required exactly a second to fall to the earth from that elevation; and the instant before it touched the earth, it had a velocity of 32 feet a second. That is to

say, if at that instant the earth were annihilated, and its attraction annulled, the weight would proceed through space at the uniform velocity of 32 feet a second.

Suppose that instead of being pulled downward by gravity, the weight is cast upward in opposition to the force of gravity, with what velocity must it start from the earth's surface in order to reach a height of 16 feet? With a velocity of 32 feet a second. This velocity imparted to the weight by the human arm, or by any other mechanical means, would carry the weight up to the precise height from which it has fallen.

Now, the lifting of the weight may be regarded as so much mechanical work. I might place a ladder against the wall, and carry the weight up a height of 16 feet; or I might draw it up to this height by means of a string and pulley, or I might suddenly jerk it up to a height of 16 feet. The amount of work done in all these cases, as far as the raising of the weight is concerned, would be absolutely the same. The absolute amount of work done depends solely upon two things: first of all, on the quantity of matter that is lifted; and secondly, on the height to which it is lifted. If you call the quantity or mass of matter m, and the height through which it is lifted h, then the product of m into h, or mh, expresses the amount of work done.

Supposing now, that instead of imparting a velocity of 32 feet a second to the weight we impart twice this speed, or 64 feet a second. To what height will the weight rise? You might be disposed to answer, "To twice the height;" but this would be quite incorrect. Both theory and experiment inform us that the weight would rise to four times the height; instead of twice 16, or 32 feet, it would reach four times 16, or 64 feet. So also, if we treble the starting velocity, the weight would reach nine times the height; if we quadruple the speed at starting, we attain sixteen times the height. Thus, with a velocity of 128 feet a second at starting, the weight would attain an elevation of 256 feet. Supposing we augment the velocity of starting seven times, we should raise the weight to 49 times the height, or to an elevation of 784 feet.

Now the work done—or, as it is sometimes called, the *mechanical effect*—as before explained, is proportional to the height, and as a double velocity gives four times the height, a treble velocity nine times the height, and so on, it is perfectly plain that the mechanical effect increases as the square of the velocity. If the mass of the body be represented by the letter m, and its velocity by v, then the mechanical effect

would be represented by $m\,v^2$. In the case considered, I have supposed the weight to be cast upward, being opposed in its upward flight by the resistance of gravity; but the same holds true if I send the projectile into water, mud, earth, timber, or other resisting material. If, for example, you double the velocity of a cannon-ball, you quadruple its mechanical effect. Hence the importance of augmenting the velocity of a projectile, and hence the philosophy of Sir William Armstrong in using a 50 lb. charge of powder in his recent striking experiments.

The measure then of mechanical effect is the mass of the body multiplied by the square of its velocity.

Now, in firing a ball against a target, the projectile, after collision, is often found hissing hot. Mr. Fairbairn informs me that in the experiments at Shœburyness it is a common thing to see a flash of light, even in broad day, when the ball strik s the target. And if I examine my lead weight after it has fallen from a height I also find it heated. Now, here experiment and reasoning lead us to the remarkable law that the amount of heat generated, like the mechanical effect, is proportional to the product of the mass into the square of the velocity. Double your mass, other things being equal, and you double your amount of heat; double your velocity, other things remaining equal, and you quadruple your amount of heat. Here then we have common mechanical motion destroyed and heat produced. I take this violin bow and draw it across this string. You hear the sound. That sound is due to motion imparted to the air, and to produce that motion a certain portion of the muscular force of my arm must be expended. We may here correctly say, that the mechanical force of my arm is converted into music. And in a similar way we say that the impeded motion of our descending weight, or of the arrested cannon ball, is converted into heat. The mode of motion changes, but it still continues motion; the motion of the mass is converted into a motion of the atoms of the mass; and these small motions communicated to the nerves, produce the sensation which we call heat. We, moreover, know the amount of heat which a given amount of mechanical force can develop. Our lead ball, for example, in falling to the earth, generated a quantity of heat sufficient to raise the temperature of its own mass three-fifths of a Fahrenheit degree. It reached the earth with a velocity of 32 feet a second, and forty times this velocity would be a small one for a rifle bullet; multiplying three-fifths by the square of 40,

we find that the amount of heat developed by a collision with the target would, if wholly concentrated in the lead, raise its temperature 960 degrees. This would be more than sufficient to fuse the lead. In reality, however, the heat developed is divided between the lead and the body against which it strikes; nevertheless, it would be worth while to pay attention to this point and to ascertain whether rifle-bullets do not, under some circumstances, show signs of fusion.

From the motion of sensible masses, by gravity and other means, the speaker passed to the motion of atoms towards each other by chemical affinity. A collodion balloon filled with a mixture of chlorine and hydrogin was hung in the focus of a parabolic mirror, and in the focus of a second mirror 20 ft. distant a strong electric light was suddenly generated; the instant the light fell upon the balloon the atoms within it fell together with explosion, and hydrochloric acid was the result. The burning of charcoal in oxygen was an old experiment, but it had now a significance beyond what it used to have; we now regard the act of combination on the part of the atoms of oxygen and coal exactly as we regard the clashing of a falling weight against the earth. And the heat produced in both cases is referrable to a common cause. This glowing diamond, which burns in oxygen as a star of white light, glows and burns in consequence of the falling of atoms of oxygen against it. And could we measure the velocity of the atoms when they clash, and could we find their number and weight, multiplying the mass of each atom by the square of its velocity, and adding all together, we should get a number representing the exact amount of heat developed by the union of the oxygen and carbon.

Thus far, we have regarded the heat developed by the clashing of sensible masses and of atoms. Work is expended in giving motion to these atoms or masses, and heat is developed. But we reverse this process daily, and by the expenditure of heat, execute work. We can raise a weight by heat; and in this agent we possess an enormous store of mechanical power. This pound of coal, which I hold in my hand, produces by its combination with oxygen an amount of heat which, if mechanically applied, would suffice to raise a weight of 100 lbs. to a heiuht of 20 miles above the earth's surface. Conversely, 100 lbs. falling from a height of 20 miles, and striking against the earth, would generate an amount of heat equal to that developed by the combustion of a pound of coal. Wherever work is done by heat, heat disappears. A gun

which fires a ball is less heated than one which fires blank cartridge. The quantity of heat communicated to the boiler of a working steam-engine is greater than could be obtained from the re-condensation of the steam after it had done its work; and the amount of work performed is the exact equivalent of the amount of heat lost. Mr. Smyth informed us in his interesting course, that we dig annually 84 millions of tons of coal from our pits. The amount of mechanical force represented by this quantity of coal seems perfectly fabulous. The combustion of a single pound of coal, supposing it to take place in a minute, would be equivalent to the work of 300 horses; and if we suppose 108 millions of horses working day and night, with unimpaired strength, for a year, their united energies would enable them to perform an amount of work just equivalent to that which the annual produce of our coal-fields would be able to accomplish.

Comparing the energy of the force with which oxygen and carbon unite together, with ordinary gravity the chemical affinity seems almost infinite. But let us give gravity fair play; let us permit it to act throughout its entire range. Place a body at such a distance from the earth that the attraction of the earth is barely sensible, and let it fall to the earth from this distance. It would reach the earth with a final velocity of 36,747 feet in a second; and on collision with the earth the body would generate about twice the amount of heat generated by the combustion of an equal weight of coal. We have stated that by falling through a space of 16 feet our lead bullet would be heated three-fifths of a degree; but a body falling from an infinite distance has already used up 1,299,990 parts out of 1,300,000 of the earth's pulling power, when it has arrived within 16 feet of the surface; on this space only 1,130,000ths of the whole force is exerted.

Let us now turn our thoughts for a moment from the earth towards the sun. The researches of Sir John Herschel and M. Pouillet have informed us of the annual expenditure of the sun as regards heat; and by an easy calculation we ascertain the precise amount of the expenditure which falls to the share of our planet. Out of 2,200 million parts of light and heat the earth receives one. The whole heat emitted by the sun id a minute would be competent to boil 12,000 millions of ice-cold water. How is this enormous loss made good? Whence is the sun's heat derived, and by what means is it maintained? No combustion, no chemical affinity with which we are acquainted would be competent to produce the tem-

perature of the sun's surface. Besides, were the sun a burning body merely, its light and heat would assuredly speedily come to an end. Supposing it to be a solid globe of coal, its combustion would only cover 4,600 years of expenditure. In this short time it would burn itself out. What agency can then produce the temperature and maintain the outlay? We have already regarded the case of a body falling from a great distance towards the earth, and found that the heat generated by its collision, would be twice that produced by the combustion of an equal weight of coal. How much greater must be the heat developed by a body falling towards the sun! The maximum velocity with which a body can strike the earth is about 7 miles in a second; the maximum velocity with which it can strike the sun is 390 miles in a second. And as the heat developed by the collision is proportional to the square of the velocity destroyed, an asteroid falling into the sun with the above velocity would generate about 10,000 times the quantity of heat generated by the combustion of an asteroid of coal of the same weight. Have we any reason to believe that such bodies exist in space, and that they may be raining down upon the sun? The meteorites flashing through the air are small planetary bodies, drawn by the earth's attraction, and entering our atmosphere with planetary velocity. By friction against the air they are raised to incandescence and caused to emit light and heat. At certain seasons of the year they shower down upon us in great numbers. In Boston 240,000 of them were observed in nine hours. There is no reason to suppose that the planetary system is limited to "vast masses of enormous weight;" there is every reason to believe that space is stocked with smaller masses, which obey the same laws as the large ones. That lenticular envelope which surrounds the sun, and which is known to astronomers as the Zodiacal light, is probably a cloud of meteors; and moving as they do in a resisting medium they must continually approach the sun. Falling into it, they would be competent to produce the heat observed, and this would constitute a source from which the annual loss of heat would be made good. The sun, according to this hypothesis, would be continually growing larger; but how much larger? Were our moon to fall into the sun it would develop an amount of heat sufficient to cover one or two years' loss; and were our earth to fall into the sun a century's loss would be made good. Still, our moon and our earth, if distributed over the surface of the sun, would utterly vanish from perception. Indeed,

the quantity of matter competent to produce the necessary effect would, during the range of history, produce no appreciable augmentation in the sun's magnitude. The augmentation in the sun's attractive force would be more appreciable. However this hypothesis may fare as a representant of what is going on in nature, it certainly shows how a sun might be formed and maintained by the application of known thermodynamic principles.

Our earth moves in its orbit with a velocity of 68,040 miles an hour. Were this motion stopped, an amount of heat would be developed sufficient to raise the temperature of a globe of lead of the same size as the earth 384,000° of the centigrade thermometer. It has been prophecied that "the elements shall melt with fervent heat." The earth's own motion embraces the condition of fulfilment; stop that motion, and the greater part, if not the whole of her mass, would be reduced to vapor. If the earth fell into the sun, the amount of heat developed by the shock would be equal to that developed by the combustion of 6435 earths of solid coal.

There is one other consideration connected with the permanence of our present terrestrial conditions, which is well worthy of our attention. Standing upon one of the London bridges, we observe the current of the Thames reversed, and the water poured upward twice a-day. The water thus moved rubs against the river's bed and sides, and heat is the consequence of this friction. The heat thus generated is in part radiated into space, and then lost, as far as the earth is concerned. What is it that supplies this incessant loss? The earth's rotation. Let us look a little more closely at the matter. Imagine the moon fixed, and the earth turning like a wheel from west to east in its diurnal rotation. Suppose a high mountain on the earth's surface; on approaching the moon's meridian, that mountain is, as it were, laid hold of by the moon, and forms a kind of handle by which the earth is pulled more quickly round. But when the meridian is passed the pull of the moon on the mountain would be in the opposite direction, it now tends to diminish the velocity of rotation as much as it previously augmented it; and thus the action of all fixed bodies on the earth's surface is neutralized. But suppose the mountain to lie always to the east of the moon's meridian, the pull then would be always exerted against the earth's rotation, the velocity of which would be diminished in a degree corresponding to the strength of the pull. The tidal wave occupies this position—it lies always to the east of

the moon's meridian, and thus the waters of the ocean are in part dragged as a brake along the surface of the earth; and as a brake they must diminish the velocity of the earth rotation. The diminution, though inevitable, is, however, too small to make itself felt within the period over which observations on the subject extend. Supposing, then, that we turn a mill by the action of the tide, and produce heat by the friction of the millstones; that heat has an origin totally different from the heat produced by another mill which is turned by a mountain stream. The former is produced at the expense of the earth's rotation; the latter at the expense of the sun's radiation.

The sun, by the act of vaporization lifts mechanically all the moisture of our air. It condenses and falls in the form of rain,—it freezes and falls as snow. In this solid form it is piled upon the Alpine heights, and furnishes materials for the glaciers of the Alps. But the sun again interposes, liberates the solidified liquid, and permits it to roll by gravity to the sea. The mechanical force of every river in the world, as it rolls towards the ocean it draws from the heat of the sun. No streamlet glides to a lower level without having been first lifted to the elevation from which it springs by the mighty power of the sun. The energy of winds is also due entirely to the sun; but there is still another work which he performs, and his connection with which is not so obvious. Trees and vegetables grow upon the earth, and when burned they give rise to heat, and hence to mechanical energy. Whence is this power derived? You see this oxide of iron, produced by the falling together of the atoms of iron and oxygen; here also is a transparent gas which you cannot now see—carbonic acid gas—which is formed by the falling together of carbon and oxygen. These atoms thus in close union resemble our lead weight while resting on the earth; but I can wind up the weight and preserve it for another fall; and to these atoms can be wound up, separated from each other, and thus enabled to repeat the proceas of combination. In the building of plants carbonic acid is the material from which the carbon of the plant is derived; and the solar beam is the agent which tears the atoms asunder, setting the oxygen free, and allowing the carbon to aggregate in woody fibre. Let the solar rays fall upon a surface of sand; the sand is heated, and finally radiates away as much heat as it receives; let the same beams fall upon a forest, the quantity of heat given back is less than the forest receives, for the energy of a portion of the sun

beams is invested in building up the trees in the manner indicated. Without the sun the reduction of the carbonic acid cannot be effected, and an amount of sunlight is consumed exactly equivalent to the molecular work done. Thus trees are formed; thus the cotton on which Mr. Bazley discoursed last Friday is formed. I ignite this cotton, and it flames; the oxygen again unites with its beloved carbon; but an amount of heat equal to that which you see produced by its combustion was sacrificed by the sun to form that bit of cotton.

But we cannot stop at vegetable life, for this is the source, mediate or immediate, of all animal life. The sun severs the carbon from its oxygen; the animal consumes the vegetable thus formed, and in its arteries a reunion of the severed elements take place, and produce animal heat. Thus, strictly speaking, the process of building a vegetable is one of winding up; the process of building an animal is one of running down. The warmth of our bodies, and every mechanical energy which we exert, trace their lineage directly to the sun. The fight of a pair of pugilists, the motion of an army, or the lifting of his own body up mountain slopes by an Alpine climber, are all cases of mechanical energy drawn from the sun. Not, therefore, in a poetical, but in a purely mechanical sense, are we the children of the sun. Without food we should soon oxidise our own bodies. A man weighing 150 lbs. has 64 lbs. of muscle; but these, when dried, reduce themselves to 15 lbs. During an ordinary day's work, for eighty days, this mass of muscle would be wholly oxidised. Special organs which do more work would be more quickly oxidized: the heart, for example, if entirely unsustained, would be oxidized in about a week. Take the amount of heat due to the direct oxidation of a given amount of food; a less amount of heat is developed by this food in the working animal frame, and the missing quantity is the exact equivalent of the mechanical work which the body accomplishes.

I might extend these considerations; the work, indeed, is done to my hand—but I am warned that I have kept you already too long. To whom, then, are we indebted for the striking generalisations of this evening's discourse? All that I have laid before you is the work of a man of whom you have scarcely ever heard. All that I have brought before you has been taken from the labors of a German physician, named Mayer. Without external stimulus, and pursuing his profession as town physician in Heilbronn, this man was the first to reduce the conception of the interaction of natural

forces to clearness in his own mind. And yet he is scarcely ever heard of in scientific lectures, and even to scientific men his merits are but partially known. Led by his own beautiful researched, and quite independent of Mayer, Mr. Joule published his first paper on the "Mechanical Value of Heat," in 1843; but in 1842 Mayer had actually calculated the mechanical equivalent of heat from data which a man of rare originality alone could turn to account. From the velocity of sound in air Mayer determined the mechanical equivalent of heat. In 1854 he published his Memoir on "Organic Motion," and applied the mechanical theory of heat in the most fearless and precise manner to vital processes. He also embraced the other natural agents in his chain of conservation. In 1853, Mr. Waterston proposed, independently, the meteoric theory of the sun's heat, and in 1854, Professor William Thomson applied his admirable mathematical powers to the development of the theory; but six years previously the subject had been handled in a masterly manner by Mayer, and all that I have said on this subject has been derived from him. When we consider the circumstances of Mayer's life, and the period at which he wrote, we cannot fail to be struck with astonishment at what he has accomplished. Here was a man of genius working in silence, animated solely by a love of his subject, and arriving at the most important results some time in advance of those whose lives were entirely devoted to Natural Philosophy. It was the accident of bleeding a feverish patient, in Java, in 1840, that led Mayer to speculate on these subjects. He noticed that the venous blood in the tropics was of a much brighter red than in colder latitudes, and his reasoning on this fact led him into the laboratory of natural forces, where he has worked with such signal ability and success. Well, you will desire to know what has become of this man. His mind gave way; he became insane, and he was sent to a lunatic asylum. In a Biographical Dictionary of his country it is stated that he died there; but this is incorrect. He recovered; and, I believe, is at this moment a cultivator of vineyards in Heilbronn.—*Chemical News.*

IODINE: ITS ACTIONS, NORMAL AND ABNORMAL, UPON THE HUMAN BODY.

BEING A REVIEW UPON THIS SUBJECT, MADE BY DRS. SCHNELLER AND HERMANN, PUBLISHED IN THE OESTRR ZTSCHR. F. PRAKT. HEILK.

Translated from Canstatt's Jahresbericht.

Dr. Schneller reports the results of his own experience, which lasted over a period of twenty years; in his practice he employed Iodine, its preparations and certain mineral waters containing it,—his conclusions in reference to its effects being the following: (a) The constitutional effects of Iodine, described by Rilliet under the name of iodismus, offers, in its symptoms, which have been accurately described and grouped together by Rillet, some new features, though its general symptoms have long been recognized as consequences of the use of Iodine. (b) Iodismus, or anglicised *iodism*, only occurs in exceedingly rare cases. (c) Medium, as well as very small doses of the argent give rise to iodism more speedily than larger ones. (d) Old, debilitated persons, and those of an irritable habit, who have manifested symptoms of scrofula, seem to possess, for these reasons, a greater susceptibility to Iodine than others. (e) The use of this agent, in persons of the characteristics just mentioned, requires, on this account, more precaution than has hitherto been exercised. (f) The constancy of the occurrence of iodism as set forth by Rilliet, is not so free from doubt, and hence not of so convincing a character as should induce us to use Iodine less frequently than has hitherto been done.

Somewhat in opposition to these views, it is interesting to note the experience of Dr. Jos. Hermann, which bears much analogy to what has been noticed in Paris and London: Hermann's observations led him to adopt the notion of the non-existence of constitutional symptoms resulting from the use of Iodine. He treated annually, in the department of the Vienna Hospital, devoted to cutaneous and syphilitic diseases, about 1,000 patients. His plan of treatment was as follows: In its incipient stage, syphilis was treated merely as a local affection, without any internal medication; the secondary and tertiary forms of this disease—according to Hermann, sequelæ of mercurial treatment,—were treated entirely by the use of iodide of potassium, iodide of sodium, and iodureted cod-liver oil. Also, as external remedies, were employed the various com-

pounds of Iodine, as well as the tinctura iodini and iodureted glycerine, no mercurials being used: consequently, since more than one-third of the cases had, at the period of their admission, been affected for some time, and been treated with mercury, there were, annually, from three to four hundred patients treated with Iodine. Under this mode of treatment, the following phenomena were present:

(1.) The most ordinary physiological change which took place in the organism was in regard to the urine. This secretion was increased in quantity, and in case metallic poisoning presents itself, the urine is so changed in quantity that its specific gravity sinks to 1005, and even as low as 1002; its solid contents become less in amount, the urea, sulphates, earthy and alkaline phosphates are reduced to amounts so small as to be scarcely appreciable. At the same time the water and the chlorides are increased to abnormal amounts; in this attenuated urine there exist traces of albumen, carbonate of ammonia, and other unusual agents. The augmented urinary secretion, as well as the qualitative changes which occur in it, that have been mentioned, are the most constant phenomena following the use of Iodine,—they occur in near eighty per cent. of the cases; they continue during a variable period, which is influenced by the person's constitution,—the time varying from ten to fifty days, or even more; the increase in quantity disappears, as soon as the urine returns to its normal constitution again; sometimes, also, the supervention of some other symptom, as perspiration, diarrhœa, salivation, occurring under the form of a crisis, is followed by a diminished flow of urine, and a return to its normal constitution. Under the circumstances mentioned, the presence of albumen in the urine is almost a prognostic sign that mercury may be shown by electrolysis.

(2.) In about ten per cent. of the cases in which mercury had been administered, and to an extent which was detrimental to the system, inducing a class of symptoms to which Hermann gave the title of hydrargyrosis, in such cases of syphilis, the administration of Iodine was followed by a profuse secretion of saliva, amounting often to one pound in 24 hours. The salivation thus induced by the use of Iodine is distinguished from mercurial ptyalism in this, that in the former case, there is no orritation or ulceration of the mouth or gums, no swelling of the mucus membrane of the oral cavity, and in the majority of cases, no soreness of the salivary glands, and no unpleasant odor from the mouth;—in many

cases, indeed, in which these symptoms had been brought about by the use of mercury, they rapidly disappeared under the use of Iodine. The author, in all such cases, in which salivation has supervened upon the use of Iodine, has found, on examination, that mercury was contained in the salida, and hence he regards this as positive evidence, that the salivation arose from the mercury, and not from the Iodine.

(3.) In about four per cent. of the cases, there followed the administration of Iodine a profuse perspiration, which did not weaken the patient: the author regards this perspiration as critical in character, since it arose under the exclusive use of Iodine alone, no sudorific having been administered; he conjectures that mercury is present in this cutaneous discharge. As was the fact in the case of the occurrence of salivation, so after the supervention of profuse perspiration, the recovery was rapid and permanent.

(4.) In many cases, after the internal use of Iodine, during a period, varying from 20 to 50 days, there appeared an exanthema of the following characteristics: The original form appeared as small, round, papulæ,—in some cases, instead of the papulæ, small vesicles or pustules were present; these were grouped together in patches, disposed at greater or less intervals, which did not become confluent; this eruption, which was attended by no burning nor itching, ran through its various phases in from five to eight days, and then disappeared, without leaving any scar or discoloration. It either presents itself in isolated portions of the body, as on the face, forehead, breast, abdomen, back, or extremities; or it may occur simultaneously in various parts of the body, or, indeed, the entire surface may be affected with it, including even the scalp itself: the general eruption is not accompanied by a universal reaction, but, for the most part, occurs irregularly, so that, in one portion of the body, it has already vanished, while, in other parts, the erosion still shows itself. The color of the spots, on the margin of the vesicles relatively to that of the pustules, is rose-red, in case the mercurial poisoning has been of small extent or is entirely absent; the tinting becomes of a more intense red hue, or even of a deep copper color, in case there is a high grade of mercurial poisoning. Also, in those instances where the Iodine eruption occurs, in conjunction with some other one, as roseola syphilitica, or with papulæ, pustulæ, or furunculi, which attend mercurial blood-poisoning, then the exanthema, which arises from Iodine,—and which consists of fresh spots or vesicles,—always

appears in the intervening interstices, and again disappears,—while the roseola, the papulæ, &c., run through their various modifications. The occurrence of the eruption from Iodine has neither a pathological nor a prognostic significance, and in nowise indicates that the system is surcharged with Iodine and that the agent should be suspended. This phenomenon comes and goes, even during the constant use of Iodine; it appears and disappears during a protracted use of Iodine.

(5.) The scars of chancres, which have long since arisen, even months or years ago, after the use of Iodine, open again; the scars may actually be seen undergoing disintegration and solution of their texture, and thus to present fresh excoriations and even ulcers; these excoriations or ulcers present a great resemblance to the primary chancre, yet do not generate matter which may be inoculated, or propagated by contact. [I would call special attention to this fact, as it is, no doubt, what has fallen under the observation of every one who has treated syphilitic patients with the compounds of Iodine; six weeks since, such an instance came under my notice, in which, during the use of Iodine, the cicatrix of an old chancre opened, presenting all the characteristics of a primary syphilitic ulcer,—and, what was still more remarkable, a bubo soon followed this pseudo-chancre. From my acquaintance with the patient, I was well convinced that he did not deceive me in regard to this chancre occurring sponte sua, as he belonged to that class of men who pride themselves upon the frequency of their venereal attacks—regarding each one as a bright jewel in their life-experience. The bubo, in this case, was caused to disappear by active counter-irritation, without reaching the point of suppuration.—Ed.] The author states that he has seen this event only in the secondary and tertiary forms of syphilis, or, according to his ideas, in the chronic forms of hydrargyrosis. He explains this phenomenon in this wise, that the cicatrices remain dormant so long as the mercurial blood-poisoning is not manifest, or, in case it is manifest, it exhausts its injurious effects in the formation and development of other morbid products;—for example, when it is expended upon the mucous membranes, or upon the glandular or osseous systems. If now the Iodine be given, there arises from the increased activity of the vital process, an augmentation of the vis medicatrix naturæ, under the agency of which there is a disappearance of those cicatrices which have arisen under the employment of mercury:—in order, however, to effect this, the unhealthy scars, which have arisen from the use of mer-

cury, must first be broken down by an ulcerative process, which, after the purification of the blood has been completed, heal up and remain radically cured. Phenomena similar to these have been observed by Dr. Englemann and other physicians, after the use of the iodureted water of the mineral waters of Krueznach.

(6.) In a few cases, perhaps two per cent., there arose, under the use of Iodine, a diarrhœa, which lasted several days, or even some weeks; this diarrhœa, though of a very free character, was unattended with much pain or exhaustion of the body; during its continuance, the external manifestations of hydrargyrosis disappeared before the cessation of the use of the medicine, the diarrhœa also ceased; or, in case the remedy was continued, the diarrhœa in nowise assumed a dangerous character. The author regards this intestinal discharge of a critical character, and especially so when it indicates an elimination of mercury.

(7.) In near one per cent. of the cases in which Iodine was given, the patient's body emitted an unpleasant odor; in other cases, there were objective and subjective indications that the agent had been taken, appreciable in the breath and cutaneous transpiration.

The foregoing phenomena presented themselves in the patient in from eight to ninety days, under the administration of the iodide of potassium, in from 10 to 30 grains, given daily; or, of the pure mineral iodine, in doses of 2 grains daily.—*San Francisco Med. Press.*

THE PHYSIOLOGY OF MORMONISM.

By CHARLES C. FURLEY, M. D., Assistant Surgeon United States Army.

On a recent visit to Salt Lake I had good opportunities for observing and inquiring into the effects of polygamy, as practically exemplified in the case of that people. While sojourning there I mingled much amongst them, visiting them in their homes, and seeing them at their public assemblies and places of business and pleasure; wherefore, I feel qualified to speak of the results of their peculiar institutions, both in their social, physiological and intellectual bearings. It is, however, chiefly as a physiologist that I shall, at present, consider the

subject, and, in this view, I must say, the consequences of the Mormon system, as we find them illustrated in the inhabitants of Salt Lake, are, in every aspect of the case, hurtful and degrading.

A marked physiological inferiority strikes the stranger, from the first, as being one of the characteristics of this people. A certain feebleness and emaciation of person is common amongst every class, age and sex; while the countenances of almost all are stamped with a mingled air of imbecility and brutal ferocity. This, in fact, is their true character; they being obsequious and yielding to their superiors—to strangers sullen and spiteful, while among themselves they are cold and unamiable. In the faces of nearly all, one detects the evidences of conscious degradation, or the bold and defiant look of habitual and hardened sensuality—the women, with but few exceptions, serinking from the gaze of the stranger, as if fully alive to the false and degraded position they are forced to occupy. Some seem overwhelmed with shame; others wear a forlorn and haggard appearance, while a few put on a cheerful air, affecting to be satisfied with their sad condition.

Without entering into minutiæ, I may instance the following as a few of the bodily peculiarities that strike the medical man in mingling with the inhabitants of Salt Lake City: Besides the attenuation mentioned, there is a general lack of color—the cheeks of all being sallow and cadaverous, indicating an absence of good health. The eye is dull and lustreless—the mouth almost invariably coarse and vulgar. In fact, the features—the countenance—the whole face, where the divinity of the man should shine out, is mean and sensual to the point of absolute ugliness. I have nowhere seen anything more pitiful than the faces of the women here, or more disgusting than the entire appearance of the men. It is a singular circumstance that the physiognomical appearance of the children are almost identical. The striking peculiarity of the facial expression—the albuminous types of constitution, the light yellowish hair, the blue eye and the dirty, waxen hue of the skin, indicate plainly the diathesis to which they belong. They are puny and of a scorbutic tendency. The external evidences are numerous that these polygamic children are doomed to an early death—the tendency to phthisis pulmonials being eminent and noticeable.

The evidences of natural degeneracy are more palpable in the youthful than in the adult population; the evils of this pernicious system not having taken full effect upon the latter.

A more feeble and ill-looking race of children I have not met with, even among the vice and squalor of our larger cities. One looks in vain for those signs of constitutional vigor and sturdy health common to the juvenile portion of what may be considered but a country town. So far as food, climate and other external causes are concerned, the children, as well as the adults here, are favorably circumstanced; their sanitary conditions are generally good; wherefore, we must look to the evils engendered by their religious and social system for the agents of this physical inferiority. In this system, the physiologist and moralist will not fail to detect the ample causes for a decay even so marked and melancholy. That this is not a mere fancy, or the result of prejudice, I may say, the same impression has been made upon all who have ever visited Salt Lake City, and published their opinions on the subject. Indeed, we find, in all the instincts and habits of these people, full confirmation of the physical facts above set forth. They are as gross and vulgar in all their tastes, thoughts and styles of expression as in their bodily appearance. More than half their language is made up of slang phrases, nor do they relish the efforts of their preachers, unless well interlarded with this style of speech. As a consequence, these men indulge freely in the most trivial, and, sometimes, in the most vulgar and blasphemous expressions, to the great delight and mental titillation of their hearers.

The Mormon, with few exceptions, is low-bred and vulgar. Dancing is his favorite amusement—forming, in fact, not only a pastime, but a part of his religious exercises. His conversation is of the most simple and commonplace character. His thoughts never soar above his amusements or domestic affairs. He deals in the gossip and scandal of his neighborhood. The Mormons, of both sexes, are an ill looking set, and when we have said they are frugal, industrious and content, we have enumerated about all the virtues they can claim, or that we can conscientiously concede to that wretched system of degradation known as Mormonism.

Under the polygamic system, the feeble virility of the male and the precocity of the female become notorious. The natural equilibrium of the sexes being disturbed, mischief of this kind must ensue; as a consequence, more than two thirds of the births are females, while the offspring, though numerous, are not long lived, the mortality in infantine life being very much greater than in monogamous society, and were it not for the European immigration, the increase of inhabitants

would be actually less than in Gentile communities. The fecundity of the women is remarkable, as might be expected, considering that the husband cohabits with the wife only at such periods as are most favorable to impregnation.—*San Francisco Med. Press.*

EDITORIAL AND MISCELLANEOUS.

CALOMEL IN THE ARMY.

THE SURGEON-GENERAL'S ORDER.

The recent action of Surgeon-General Hammond, cutting off Calomel and Tartar Emetic from the Army Medical Supply Table, has given rise to a great deal of both professional and unprofessional comment, and an abundance of both pertinent and impertinent remark. The secular press have grown oracular upon it; the medical press, in greater part, have touched the matter gingerly, if at all; whilst one or two have expectorated upon the order their direst wrath. A number of medical gentlemen in this city, numbering about the detailed squad at a major's funeral, in the name of the American Medical Association, (*Quantum mutatus ab illo!*) censured it in language as mild as a skim-milk projectile; whilst an indignant society in one of our sister cities, exhausts the vocabulary of Billingsgate in characterizing it, and only pauses in piling up still darker adjectives from positive exhaustion. All the notes of opposition have been sounded, from the deep-toned base of blackguardism up, through all the gamut of scurrility, to the highest tones of vituperation and invective.

The senseless cachinnation of quackdom, from the rough adherent of Sam. Thomson glorying in his fool's cap and bells, to the dainty and emasculated votary of Hahnemann with his dreary spiritualistic platitudes and shadows, may be passed over as wholly outside of the argument. What they

cackle, or ethereally suspire, weighs not a feather in deciding this question. Great principles depend neither on the wise man's nod, nor the fool's grin. A great action is none the less to be admired because the mob throw up their hats and applaud—it is none the less to be investigated because they contemn it. As Medicine is above popular prejudice, it is also superior to its prepossessions. The questions it discusses are original, independent questions.

We confess that when we first heard of this order, which, by the way, was from the lips of our correspondent of last month, we were not only surprised but disposed to believe it an error in judgment on the part of the Surgeon-General. We are not yet certain that the object sought might not have been secured in a manner less displeasing to the profession at large. It seemed to detract something from that proud professional independence which had always been our boast. Whatever our opinion of the merits or demerits of any particular agent, or whatever the opinion of our patients in the premises, we have always claimed and shall continue to claim the strictly scientific and professional right to use it, or let it alone, in any particular case, or series of cases, which may arise in our practice. What we want in practice is potential agencies—we do not believe in specifics or panaceas, and he who undertakes to crowd them down our throat is as repulsive to us as he who takes away the power which we wish to use. But we waive that point at present.

The readers of this Journal know what our views are with reference to Mercurials, and both they and the students of Rush Medical College know that we recommend their use, under such limitations as have been pointed out by the more exact observations of modern time. Of Tartar Emetic we only say, now, that after observation of its use compared with that of Veratrum Viride, for many years, we give the Antimonial largely the preference—though, truth to say, we use neither as often as in the earlier days of our practice. But if the use of Mercurials and Tartar Emetic is to be the criterion

of orthodoxy—we certainly are orthodox—at least occasionally. With advancing years we confess, with deep contrition, we are getting to depend more and more upon the due regulation of the "*non naturals*," air and water, food, exercise and sleep, than we do of the cunningest combination of drugs. We are getting to think vastly less of *spanæmics* and vastly more of nutrients—much less of *alteratives*, and much more of those things which energise nutrition and directly sustain the failing powers of life.

When under the excitement of the discovery by sundry North-eastern gentlemen of the remarkable powers of Quinine over certain forms of endemic disease, long well known in the West and South, they undertook to make it a panacea and omnipotent prophylactic, and by official order to crowd millions of ounces down the throats of the unhappy soldiery, this Journal urged its indignant protest and almost alone enunciated the true doctrine. Time, and a little experience have cooled the ardor of the apostles of Quinine-prophylaxis, and the excessive use of this most useful article has now shrunk to narrower limits.

The experiment was expensive—the resulting evils prompt in making themselves known. When we urged that better dietetic and general hygienic measures must be adopted to ward off pestilence from the army, they ridiculed the idea, and urged the purchase of more Quinine.

There were "many dry eyes" at the interment of "Quinine-prophylaxis." There are a multitude more dry eyes as Surgeon-General Hammond musters the mourners at his recent order.

We said we thought at first that the Surgeon-General might have adopted some course less distasteful to the profession. Reflection convinces us that from his point of view he could scarcely have taken any other course than that which he has taken. And this conclusion has been arrived at only after mature consideration.

In the first place the indignation expended on the Surgeon-

General is from a mistaken idea of his position, and the position of his subordinates on the medical staff.

The Surgeon-General is responsible for the success of his department, for the health and lives of the soldiery, as a commanding general is for the success of the army in the field. He is placed in the position of one who has to accomplish through others that for which he is held to personal accountability, as the private practitioner is for his own methods of treatment. It may be that there are private soldiers better informed and with better judgment than the officers over them—officers also superior in qualifications to their generals and commander-in-chief—but the usages of war and the necessities of discipline require that the private judgment of the inferior, in arbitrary rank, shall be wholly subservient to the superior. And this is not deemed improper or entailing any disgrace to the subordinate. On the contrary, implicit obedience to orders is the highest virtue of the service. The army is a vast machine responsive to a single master hand, and the master is solely responsible.

But this is too clear to need argument. The Surgeon-General is General over his subordinates, and is held responsible for them, and hence has clearly a right to control their official actions according to the dictates of his own judgment, not according to their's, or your's, or mine.

Is a great profession about to denounce one of their number, upon whom such tremendous responsibilities rest, for using or not using this or that agent, whilst each of its members claims the absolute right to use or not to use them as he pleases?

In joining the army, observe, the surgeon has merged his personality in it, and become only a part of the great engine of power. He is only responsible for obedience to the order which comes down to him, whereas the Surgeon-General is responsible as an individual, and has the rights of an individual to employ or not to employ, by himself or his agents, whatever he in his best judgment thinks best.

But it is said he has based his action upon false premises,

and therefore is censurable. His primary expressed reason for the removal of Calomel and Tartar Emetic from the Supply Table is, that they have been abused in use and that the consequences have been disastrous—a statement which the Chicago meeting insinuated to be unproved, and the Cincinnati brotherhood roundly asserted to be libelous. Here is a simple question of fact, and by the record only is it to be proved or disproved. Where is the record? In the hands of the Surgeon-General. On the one side stands the official record—vouched for by a professional gentleman of high distinction, thoroughly versed in the scientific methods of observation and analysis of the present age; a man against whose personal integrity his bitterest official enemy dare not breathe a whisper, and who has responsibilities piled upon him beyond any which the world has ever known, (for we repeat what we have elsewhere said, that his position is infinitely more important than that of any mere general in the field), and on the other side we have but the irresponsible *say-so* of individuals of perhaps private civil eminence, and the prejudices and prepossessions of persons of limited view who fancy that the removal of a couple of agents from the medical *armamentaria*, is about to break down all divisions between scientific and pseudo-medicine and bring the quack on the level with educated physicians.

If any one knows the truth of this premiss, we insist, it is the Surgeon-General, and we are bound as honorable members of the profession to accept his statement to be true until, by evidence fully as authoritative as that which he claims to have in his bureau, the opposite is made to appear.

We apprehend that no educated physician will assume that his second statement, viz: that the advance of modern pathology has narrowed the range of useful application of the two mooted agents, is at all questionable.

For example, the old idea of Calomel was that it is an "antiphlogistic," hence applicable in all febrile and inflammatory affections—all educated medical men now know that

it is not an antiphlogistic, but rather a *stimulant*, rapidly disintegrating the tissue, exhausting by excessive cell and molecular change.

True, by its primary action as a cathartic it may prove antiphlogistic, but every repetition of the dose develops more and more the stimulating i. e. tissue-disintegrating effect.

Why not then, it may be asked, use it as a stimulant? Because it rapidly exhausts without replacing tissue. That stimulant is always to be chosen which is adjuvant to increased nutrition; a part, or the whole, of which is capable of entering into and forming a portion of the organism.

But we do not propose to discuss the action and uses of Calomel. Practicing upon our own responsibility we use it when we choose, and shall continue to do so, because no one else is responsible. If we had voluntarily placed ourselves where some one else was responsible, we should either conform to his directions or resign. There is not a surgeon in the army who will permit his assistants, or the Hospital Steward, to use what he has directed not to be used.

Now if the Surgeon-General honestly entertains the views he has laid down in his circular, with regard to the abuses prevailing in the employment of the articles named, and the present restricted range of its application all admit, we submit that he has a clear and indefeasible right, nay it was his duty, to issue such an order, and the attempt to ostracize him from the profession in any quarter will recoil upon the projectors. It is an abandonment of the grand principles of toleration, which are the true glory of our profession.

Is there "a divinity which doth hedge around" these two remedies, that renders it indispensable for them to be placed upon the Supply Table? We have heard it said boastingly that at least two grand divisions of the army have enough of each on hand to last for two years—a fact probably as well known to the Surgeon-General as to those who boast of it. If, as is claimed, he proposed by the order to entirely "suppress" the use of them, why did he not couple with the

notice of striking from the supply table, an order that the amount on hand should be returned at once to the Medical Purveyors of the different districts? Or why did he leave the matter remotely inferential, and not directly order that no more should be used? If he was actuated, as some claim, by an affiliation with the "Eclectics," and a leaning towards Homœopathy, why did he not strike off all the Mercurials, Arsenic, Iron, Iodide of Potassium, &c., at one fell swoop? Blue Mass, Corrosive Sublimate, the Iodides of Mercury, &c., all still remain. Does not this prove, if further proof were wanting, (which is not,) that this is not a mere senseless concession to "Anti-Mineral" knaves and fools, but a conscientious effort to remedy a great evil—wide spread, yet entrenched in prejudices and wrapped about with a cloud of "authorities?" Practically who does not know that it is by far too common a practice to give Calomel as a *placebo*—to give it when in doubt as to correct treatment—for whatever the disease may turn out to be, in digging among the fossil strata of the libraries, one can always find "authority" for its use. As a genial professional brother at our elbow suggests, some give it as the gamesters say is their rule—*when in doubt they play trumps.* Humiliating as this may be to the pride of the educated, thinking physician, "it's true, 'tis pity, and pity 'tis, 'tis true."

Again, this is merely a local and temporary regulation. The Surgeon-General knows, as we all know, and even Cincinnati, insane upon the subject of Calomel as it is, admits it,—that the vast majority of diseases prevalent in the army utterly forbid the use of Calomel and Tartar Emetic. They are either Scorbutic, Typhoid or "Malarious" in their type—one or more, requiring restorative, tonic, stimulant and nutritive methods, and not these potent agents. The exceptions to this rule are few and far between.

A vast number of the army surgeons are young men not as yet grounded in practice, guided mainly by their text books; another large class are men advanced in years, wedded

to their particular notions, many of which are dogmas of the most baseless sort. Besides these we admit the presence in the army of very many both young and old, fully up to the times—sound physiologists, thorough students of hygiene, and *therefore* good practitioners. The latter class did not need this order—for the first two classes it was indispensable. But an army order must be general in its terms—it must be public in its issue.

It has been said that the first two classes, if not competent to administer these drugs with discretion, should have been discharged from the service, thus cutting the gordian knot of the difficulty. To those little familiar with the subject this would seem easy enough, but a mere trifle of thought will show its fallacy. The army surgeon has rights as well as duties. In the first place a court martial would be required in each case, else gross injustice might be done to individuals—and these courts-martial would necessarily, from the number and the important questions involved, be beset with infinite difficulties, besides taking away from their active duties medical officers who could not be spared from the service.

Or if they could be spared, how could charges be brought? Shall the production of a salivation be cause of dismissal, or collapse from the use of the Antimonial? How readily will the surgeon show that he used neither agent in inordinate doses, or with unwarrantable (text book and civil practice) continuance. And besides these surgeons are, perhaps, beyond reproach in every other respect—invaluable to the service. Are other military officers dismissed the service because they do not comply with orders never issued? In other branches of the service, we take it, when an evil exists the evil is corrected by a special order, and if the order is not obeyed then the offender is appropriately disciplined.

Can you order a surgeon not to salivate a soldier to whom he gives Calomel? The absurdity of the proposition is sufficient answer. But in this age of the world are we to be told that striking Calomel and Tartar Emetic from the Army

Supply Table leaves the surgeon so powerless that it is his duty rather to resign than to submit? We have yet to learn that the physician's duty, either in whole or even in greater part, consists in the administration of drugs. We believe with Cabanis, that there would still remain an art of medicine, invaluable to the world, were all, so called, medicines prohibited. It is the glory of our science that as it advances step by step, it becomes more powerful when applied to practice to palliate and remove disease by removing causes and changing conditions—placing the patient, briefly in normal physiological relations. It is the crowning triumph of the art, when the physician restores the patient to health, employing only those forces and those materials wherewith the Grand Architect builds up the human body.

Such extreme tenderness and sensibility, as is manifested in some quarters at the dropping of Calomel and Tartar emetic from the supply table seem to us to indicate on their part a want of confidence in medicine as a science, and goes far to bolster up the quacks of every hue in their anathemas of "regular" practice as mainly consisting in the exhibition of these two agents. As for us we have that degree of confidence in medical science as a whole, that if we were cut off entirely from the use of these articles we could still practice medicine with confidence and zeal. Why should these two bestride the medical world like the legs of a colossus? It is to be feared that too many yet carry them as Sinbad carried the Old Man of the Sea. We should be the masters and not the slaves of medicines, whatever their potency.

If the army was now engaged in a war under such conditions that alcoholic stimulants were found highly prejudicial, would it be unprofessional or "an insult to the profession" to order them dropped from the supply table?

As for ourselves, for instance, if we were the Surgeon General and we found that the surgeons were adopting the treatment recommended by Dr. Todd for fevers and phlogoses, we should be tempted to drop alcohol from the supply table.

And when we knew of the wretched results of the quinine madnia, before alluded to, we feared that an order on that subject might become necessary.

But Alcoholism and Quininism in their results are so open and palpable, that the merest modicum of good sense speedily corrects the practice of even the most bigoted dogmatist. The articles now stricken out are more dangerous, in the irregular life of the soldier, because the immediate results are less open and less palpable. As a matter of fact, it is perhaps safe to say, more salivations occur outside the camp hospitals than within them, for within the patient is protected from exposure and his own carelessness.

But suppose the Surgeon-General had, as some suggest would have been the better course, issued a circular cautioning his subordinates against the injudicious use of these agents, would there have been a particle less of sensation created, or less opposition begotten than is now present? Would not the quacks equally have gloried in it? It is our firm conviction that it would have been wholly unnoticed and disregarded by those to whom it was addressed. But now when called upon to face the fact that sooner or later they must face an empty Calomel bottle, and the extraordinary nature of the order itself, combine to bring the surgeon (as it should the civil practitioner) to reflect whether there may not be after all methods of cure superior to the Calomel and Tartar Emetic one to which he has been accustomed. He only needs to investigate, and he will find that the methods of treatment have advanced a wonderful distance from the Calomel and Tartar Emetic base of operations.

We know to day in this city excellent professional gentlemen who if they could be induced to leave out Calomel and its congeners from their practice for a few months, could scarcely be persuaded to take them up again, even in cases which positively demand their use.

Largely in this city, but beyond all in Cincinnati, are the deplorable results of the belief that Calomel is the central sun

around which the whole word of medicine revolves, to be observed in most startling development.

The attempt at creating an excitement over this subject, will not advance the regular profession the dimension of a hair in popular repute, but will only confirm the vulgar opinion that Calomel is all there is of it. Vehement invectives will only convince that "it is the wounded bird that flutters."

How much better for the profession to plant itself, as it triumphantly can, upon the proud position that it is independent of special remedies, panaceas and specifics—that it can dispense with the use of a multitude such, and yet be itself indispensable and inestimable to the race.

Let the medical societies and associations confine their attention to the legitimate business of bringing out the facts, and developing the principles of medical science, and no more engage in the pitiful work of acting as star chambers consigning rebellious individuals to the rack, the guillotine and oblivion.

The attempt so far as Surgeon-General Hammond is concerned will fail—nay, it has already failed. Still young, energetic, far seeing, sagacious, independent and bold, he will carry the medical corps of the grand army which he has organized from chaos, and vivified from imbecility, not only through the trying ordeal of this unhappy war, but surround it with such a prestige and renown, that the whole profession will acknowledge the grand impulse which has been given them by one live, wise, earnest, discreet and Progressive Man.

Spina Bifida.—Mr. T. Smith reported to the Pathological Society of London the removal of the Sac of Spina Bifida by operation. It was isolated from the spinal canal by a clamp. On the nineteenth day it was punctured. The clamp was screwed up close, the tumor was shaved off, and the edges touched with heated wire.

Bobus. We think it was Dr. Johnson who querulously retorted to one of his listeners, who was pestering him for explanations, that although he felt bound to furnish men *ideas*, he was *not* bound to furnish them *brains*. We were reminded of this the other day when a professional friend remarked to us that the following paragraphs in our last No. needed explanation:

"Our readers will bear us witness, that from the hour Nurse Yates sent a communication to the *Chicago Tribune*, calling upon the benevolent for a donation of rags to absorb the abominable flux from the salivation of the soldiery at Cairo, we have ever opposed this infernal practice in the army.

In our place in Rush Medical College, as teacher of the Practice of Medicine (and we know the Professor of Surgery has done the same), we have inculcated principles wholly at war with this prostitution and abuse of these energetic remedies."

Our friend tells us that some parties really seem to think that by these words levelled against "this infernal practice in the army" we deliberately denounce all *use* of Calomel in practice, where the infernal salivation is not produced! And again that "having inculcated principles wholly at war with *this prostitution and abuse* of these energetic agents" therefore our teachings in Rush Medical College are necessarily against their use in all cases whatsoever!

All we have to say to Bobus is, that he has revealed to us a depth of stupidity which we had not yet sounded. We commend you, Bobus, to your dictionary and some moderate study of the vernacular.

Machiavel says there are three degrees of capacity: "One man understands of himself, another understands what is explained; a third understands neither by himself, nor by any explanation; the first is excellent, the second commendable, the third altogether unprofitable."

We believe that Bobus belongs to the third class, and there we leave him. God help you, poor Bobus!

Humors of the Craft. A case of *Purpura haemorrhagica* is sent up to our table wherein the "M. D." advised and applied a string around the little finger and a string around the little toe of the sinister extremities to "suppress" epistaxis. No other treatment was suggested.—A Brigade Surgeon—"home from the wars"—and a proud evidence of the fact that homoeopathists can get into the grand army, (as the "secesh" do, in stolen uniforms,) to our own knowledge, a few days since was treating, what he asserted to be, a transverse fracture of the patella by fixing the leg in one of Day's double inclined planes.—Another who wished to rectify the deformity of a badly united leg, was lastly seen soaking the unhappy extremity in a tub of water "to take out the stiffening, so he could bend it into its place."—Cincinnati is in an uproar unequalled since the days of the Ephesians. The brethren verily believe their craft is in danger, because Surgeon-General Hammond refuses to pay for any more Calomel or Antimony for "our common Uncle's" soldiers. We suppose the order a "military necessity." No other ordnance can be used to kill the enemy, whatever its "potency" than that which "Uncle Sam" prescribes—why should he not also establish what ordnance only may be used to deplete his own army? Certain kinds of knives only are provided the surgeons—there certainly ought to be an indignation meeting, and the Surgeon General called upon to resign at once because he does not furnish some other patterns. But we forget "the Surgeon General is only a Physiologist"—true, a most eminent one, but even this is "very tolerable and not to be endured." What business has he to know anything about Physiology—the very essence of his business, and still stay in the army, where a man notoriously has the best places for knowing nothing of his business? Poor Hammond! He *writes* his name instead of having a mark to himself like an honest plaindealing man! Away with him, and hang him and his Physiology together!

Duke. One of these men is Genius to the other;
And so of these; which is the natural man,
And which the Spirit? who deciphers them?

Dro. S. I, sir, am Dromio; command him away,
Dro. E. I, sir, am Dromio; 'pray let me stay.—*Comedy of Errors.*

It is stated that what was called the "Medical Department of Lind University" is hereafter also to be called the "*Chicago Medical College.*" What is in the wind with the Reform School? It is not the first time that we have heard of the convenience of an *alias.*

DeLaskie Miller, M. D., Prof. of Obstetrics and Diseases of Women and Children in Rush Medical College is at present visiting Europe with the object of adding to the interest of his department such means of illustration and practical improvements as may be commended to his judgement on personal observation of the scientific treasures of the old world.

We scarcely think it will be deemed against the dictates of the most delicate sense of propriety to say of Prof. Miller, in his absence, that although not beyond the middle period of life, he has already attained, not only the reputation but, the fact of thorough and extensive professional scholarship which has been corrected and invigorated by a range of practical experience in his department, at least, second to no other in this great city. Quick perceptions, a ready and retentive memory, ease and fluency in speaking, with the most conscientious anxiety to impress what he believes to be scientific truth upon the minds of students, render him deservedly a favorite of the medical classes, whilst his amiable, unassuming and gentlemanly demeanour, combined with remarkable practical tact, have commanded the most implicit confidence and personal regard of his numerous patients. Young, enthusiastic and devoted to his profession, we predict for him a career which will well repay his energy and assiduous industry. We hope

to greet him on his return in September next, renewed in health and richly laden with professional good things which he will have " annexed " in his transatlantic tour.

University of Michigan. It is known to many of our readers that for a number of years past, there has been a constant effort on the part of the Homoeopathists to foist a chair of their absurdity upon the Medical Department of the University of Michigan. Although repeatedly defeated before the Board of Regents, they have been constantly stimulated in other attempts by the presence in the presidential chair of a zealous adherent to their doctrines. This person had infested the position from the time of his transfer from the charge of a seminary for young ladies in Bleecker St., New York City, some ten years since, until June the present year.

At the time of his accession to the presidency, a position secured wholly by fraudulent practice upon a previous appointee, the income of the University was only some ten or eleven thousand dollars a year, but, in consequence of the rapid sale of the University lands, a few years later it was enhanced to some forty or fifty thousand. This vast amount so increased the facilities of the institution, that it could not escape growth in numbers—and this growth the President and his friends adroitly attributed to him, whilst it was really in spite of him. Nevertheless it kept him in the place an unexpected length of time. Arrogant, pompous, supercilious, overbearing and insolent, he long since disgusted all sensible people in Michigan, but managed to retain position from fear on all sides that the University could not stand another shock in its appointments. Such creatures always have a still lower grade of animals who toadey them. With just learning enough to amaze the groundlings, and just skill enough to plagiarize without discovery by the most casual readers, he has strutted and fumed a whole decade upon the Ann Arbor stage. Following out a precedent which he had himself init-

iated and established, the Board of Regents, with no prefatory self-exculpation, commended the chalice which he had long since poisoned, to his own lips, and he lies now upon the University boards, just back of the footlights, a mere carcase, beyond relief even from the infinitesimals of his cherished medical advisers.

We congratulate the Board of Regents upon this truly righteous step, demanded not only by the interests of the institution committed to their charge, but by common justice and the fitness of things.

And you, Henry P. Tappan, D. D., "*Chancellor*," as you loved to call yourself, you thought that old "assassination did trammel up the consequence!" Apostle of little things—capable of the least of things—what is your present belief of Star Chamber justice?

One is dead—*de mortuis nil &c. &c.* H. P. T., D. D., &c., "packing up his books" returns crestfallen to Bleecker St.! And now only D——s remains!

"The mills of the Gods grind slowly,
But they grind exceeding small!"

"*Botanic*" *Druggists.* A correspondent calls our attention to the fact that we have among us divers apothecaries commited to the "eclectic" *alias* Thomsonian persuasion. Several notable instances have come to his knowledge, wherein the influence of these gentry has been employed to disparage the prescriptions of physicians who have unthinkingly sent patients to their shops. Our correspondent urges that it is as derogatory, to the interests and respectability of the profession, to patronize such establishments, as to consult with the quacks who are their especial pets. He directs the attention of the physician to the fact either that his prescription will not be honestly compounded, or that his patient will be practiced upon to the detriment of his confidence.

One concern in this city is especially alluded to, where the proprietor, already too much patronized by physicians, never-

theless boldly avows that he depends upon, and in turn recommends irregulars alone. To make this case still worse he says this identical individual was, but a short time since, kicked out from a respectable drug store in this city for rampant traitorous talk. Our correspondent urges that all physicians, here and elsewhere, serve him and his congeners and their wares *likewise.*

It is well to remember the scripture: Have nothing to do with the unfruitful works of the ungodly but rather reprove them. A man can not meddle with pitch without being defiled.

A Theoretical and Practical Treatise on Midwifery. Including the Diseases of Pregnancy and Parturition, and the attentions required by the child from Birth to the Period of Weaning. By P. Cazeaux, member of the Imperial Academy of Medicine; Adjunct Prof. in the Faculty of Med. of Paris, etc., etc., adopted by the Superior Council of Public Instruction, and placed by ministerial decision in the rank of the classical works designed for the use of midwife students in the Maternity Hospital of Paris. *Third American*, Translated from the Sixth French Edition, by William R. Bullock, M. D. One hundred and forty illustrations. Pp. 971, Philadelphia, Lindsay & Blakiston, 1863. [Price, $4.50.]

This magnificent work is too well known to the majority of our readers to require extended comment. As the title page denotes it is a book of classical standing and authority in France, and it must rank among the first in any language.

The author's opportunities for testing the principles of treatment, and the correctness of the doctrines put forth by other writers, have been unsurpassed, and he has brought to the touchstone of his daily experience everything which he here lays down as truth. Whilst admitting that he has collected from every source, whatever seemed to him to bear the impress of truth, he has shaped the material thus brought together into clear and simple forms.

The great popularity of the completed work both at home

and abroad is a sufficient guarantee of the skill and learning exhibited in performance of the task.

In the present edition the author besides various other additions, alterations and corrections, has introduced "an article on the important subject of Turning by external manipulation." *En passant*—we remark that we have seen at least one case that convinces us, that this point is worthy of something better than the ridicule which some parties labor to cast upon it.

The typographical execution of this edition is of the highest artistic excellence.

Clinical Lectures on the Diseases of Women and Children. By Gunning S. Bedford A. M., M. D. Prof. Obstetrics &c., Univ. of N. Y., &c., &c. *Eighth* edition, New York; Wm. Wood & Co., 1863. [Price, $2.00.]

The repeated notices we have given this work render it unnecessary to do more than simply to announce a new edition. Prof. Bedford owes it both to the profession and himself to put forth a systematic treatise on the subjects forming the title of these detached clinical lectures.

The Medical Students Vade-Mecum. A compendium of Anatomy, Physiology, Chemistry, Poisons, Materia Medica, Pharmacy, Surgery, Obstetrics, Practice of Medicine, Diseases of the Skin, &c., &c. By George Mendenhall, M. D., Prof. of Obstetrics and Diseases of Women and Children in the Medical College of Ohio, Member of the Am. Med. Ass., &c., &c., Seventh edition, revised and enlarged with two hundred and twenty-four illustrations. Philadelphia: Lindsay & Blakiston, 1863. [Price, $2.00.]

Another edition of a work which is well worthy of the success it has achieved. One of the Baconian works wherein "knowledge is digested to aphorisms;" a work not tending, as some appear to think, to superficiality but giving solidity to the whole structure of knowledge.

These things should be known, although not these only. These things should be done—others not left undone. We

approve the syllabus and the epitome—none the less the elaborate treatise and cyclopædia.

A Manual of Minor Surgery. By John H. Packard, M. D., Demonstrator of Anatomy in the University of Pennsylvania, &c., &c. With 145 Illustrations. Authorized and adopted by the Surgeon-General of the U. S. A. for the use of Surgeons in the Field and General Hospitals. Philadelphia: J. B. Lippincott & Co. 1863. pp. 288.

This work is well adapted for the use for which it was designed, and also for civil practice. Its methods and descriptions are simple, clear and methodical—well brought up to the present time.

Clinical Lectures on Diseases of Women. By J. Y. Simpson, M. D., F. R. S. E., Prof. of Midwifery in the Univ. of Edinburgh, etc., etc. Illustrated with 102 engravings on wood. *Quae prosunt omnibus.* Philadelphia: Blanchard & Lea. 1863. Pp. 510.

Thirty-eight of Prof. Simpson's Clinical Lectures are here collected and issued in permanent form. Two lectures upon Vesico Vaginal Fistula; three upon Cancer of the Uterus; one upon carcinoma of the Uterus and Mamma; two upon Dysmenorrhœa; three upon various forms of disease of the Vulva and Vagina; three upon Surgical Fever; two upon Phlegmasia Dolens; one upon coccodynia and Dis. and Deform of the coccyx; two Pelvic Cellulitis; one Pelvic Haemnatoma and Varix; two spurious Pregnancy; six upon Ovarian Dropsy; two upon Ovariotomy; one Cranioclasm, &c.; one Dropsy of Fallopian Tubes; two Puerperal Mania; one Sub-Involution of the Uterus; one Super-Involution of the Uterus and Amenorrhœa, and two lectures on Amenorrhœa conclude the series.

The profound acquirements, sound judgment and genius of the Edinburgh Professor which have given him the position of perhaps the first obstetrician of the age, are well illustrated in this work, and hence it is only needed to give the table of contents of his book to assure our readers of its great value.

The Action of Medicines in the System. "On the mode in which Therapentic agents introduced into the stomach produce their peculiar effects on the animal economy." Being the Prize Essay to which the Medical Society of London awarded the Fothergillian Gold Medal for MDCCCLII. By Frederick William Headland, M. D., B. A., F. L. S., Licentiate of the Royal College of Physicians, etc., etc. Fourth American edition. Philadelphia: Lindsay & Blakiston. 1863. Pp. 448.

This is a standard essay and should be read by every one who ventures to prescribe medicines. There is no other so clear an exposition of the subject in print.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A. B., A. M., M. D., Lt. Col.; Medical Inspector U. S. A.; Prof. of Military Surgery and Hygiene, and of Fractures and Dislocations in Bellevue Hospital Med. Coll.; one of the Surgeons to Bellevue Hospital, N. Y.: Prof. of Military Surgery, etc., in the Long Island College Hospital, Brooklyn; Author of a Treatise on Military Surgery. *Second Edition*, Revised and Improved. Illustrated with 285 wood-cuts. *Quae Prosunt Omnibus.* Philadelphia: Blanchard & Lea. 1863. Pp. 751.

In the Preface to this edition Prof. Hamilton remarks: "By a careful revision I have sought to render this edition, as far as possible, a faithful record of the progress of that branch of surgical science of which it treats. With this view some portions have been amended, some paragraphs have been excluded, and considerable additions have been made. The short chapter on "Gun Shot Fractures seemed to be demanded at this moment, and especially as the work has been placed upon the United States Army Supply Table for Post and General Hospitals."

This, as is universally conceded, is the most complete and valuable work on the subject extant. The first edition having been fully noticed in the Journal we have only to say that the present has been very considerably improved by the retouching and additions given it by the author. As it now

stands, it is invaluable to the surgeon, whether in military or civil life.

A Practical Handbook of Medical Chemistry. By John E. Bowman, F. C. S., Formerly Prof. of Practical chemistry in King's College, London. Edited by Charles L. Bloxam, Prof. of Practical Chemistry in King's College, London. *Third* American from the *Fourth* and Revised London edition. With Illustrations. Blanchard & Lea. 1863. Pp. 351.

In the present edition all the recent advances in medical chemistry have been introduced so far as practicable, still preserving the character of the Hand Book. Among the additions may be mentioned, the quantitative determination of Ammonia and Kreatinine in the Urine, and the application of the volumetric principle to the analysis of the urine. Brief practical directions for examination of the solid excrements, of bile, liquids of muscular flesh, &c. General methods of determining the presence of poisons in organic mixtures. The electrolytic method. Concluding with directions for the application of the elegant process of dialysis introduced by Prof. Graham, to the separation of poisons from organic mixtures.

We are gratified that the enterprising publishers have given us this new edition of this invaluable little work. Every practitioner should have one before him, before he engages in organic medical analysis, and particularly before he ventures upon the witness stand before the very inquisitive gentlemen of the bar.

A Practical Treatise on Dental Medicine. Being a compendium of medical science, as connected with the study of Dental Surgery. By Thos. E. Bond, A. M., M. D., Professor of Special Pathology and Therapeutics in the Baltimore College of Dental Surgery. Third Edition, Revised, Corrected and Enlarged. Philadelphia: Lindsay & Blakiston. 1863. Pp. 411. [$3.00.]

Time has not permitted us to give more than a cursory glance at the contents of this book, but so far as we can judge

it is well adapted to the object proposed, namely, the communi cation to Dentists of such professional information of a general character as more immediately bears upon their specialty We can safely commend the book, already having achieved the success of a third edition, to our friends of the dental fraternity, and at the same time suggest that it contains matter deserving the attention of the general practitioner.

Fibrinous Coagula in the Heart. The fibrinous coagula occassionably found in the cavities of the heart, and which have long been considered by the greater number of authorities as merely formed *in articulo mortis*, have latterly—since the scientific investigations with reference to Thrombi and Emboli have thrown so much light on a previously obscure branch of pathology—attracted much attention from pathologists.

At a recent meeting of the London Pathological Society, Dr. Ogle exhibited eight preparations "illustrating the spontaneous formation of fibrinous coagula, at a long period before death, in the cavities of the heart, most of which had undergone considerable softening, and some of which were quite fluid in their centre. In several of these specimens the central puriform fluid was bounded by a firm smoothish surface, reminding one of the wall of an abscess, and welled out on section of the clot being made. The firm character of these coagula, their color, their adherence to the walls of the heart, and the changes which had taken place or were taking place within them, marked conclusively that the formation of the coagula had occurred sometime, po sibly some weeks, before death. Out of the eight cases, this old standing and degenerating coagulum was found in the right auricle in five cases, in the right ventricle in three cases, and in the left ventricle in one case only. In almost all instances the cases had been such as included retardation of the blood's circulation through the lungs, and mostly a long and lingering death; the patients also being chiefly subjects of ill-health or intemperance."

Dr. Ogle thought pyaemia might be produced by bursting of a concretion. No special phenomena had marked the formation; a term of months might have elapsed he believed in some cases. Dr. Ogle also related some cases of embolism of both middle cerebral arteries, and of the coronary arteries.

We have frequently observed these fibrinous concretions in the cavities of the heart, and in at least one instance seen distinct vascularity of the new formation entitling it to the denomination of polypus.

Our friend Dr. J. P. Lynn exhibited to us, a few days since, a well marked specimen evidently formed long anterior to the death of a well known resident of this city.

With regard to the causes, it is evident that all that is requisite is first a nidus upon which the clot may form, then an excess of the fibrin of the blood, and lastly, but perhaps most important of all, such a degree of retardation of the velocity of the circulation as may favor deposit upon the roughened surface of the excess of fibrin present.

The physiological principles involved are well understood, and have been taken advantage of, again and again, in the cure of aneurism and stoppage of haemorrhage by position, and mechanical and medical appliances.

Propositions to which we wish now to call attention are simply and briefly these: *The increased frequency of the heart's contraction in inflammatory and febrile affections has the physiological object of preventing the formation of coagula in its cavities. Rash interference with this prophylactic effort of nature, by agents which notably retard the heart's action, directly favors formation of these coagula and their subsequent dangers.*

He who boasts that with Veratrum Viride, or Tartar Emetic, or other sedative, he has reduced the pulsation from a hundred or more, below the normal standard, by no means convinces me that, unwillingly perhaps, he is not responsible for the sudden, or it may be slow and lingering, death which ensues. In this respect, it must be confessed, Tartar Emetic is immensely superior to its proposed substitutes, because it contemporaneously with its action upon the heart, defibrinates the blood.

Purulent Sinuses of the Mamma Cured by Rest. The powerful curative agency of *rest* is well illustrated in a case of deep purulent sinuses in the left mamma of five months standing treated by Mr. Ure in St. Mary's Hospital, London. The breast was perforated in several places by the sinuses which could be traced under the gland, and from which there was a discharge of sero-purulent matter. It felt hard, somewhat fuller than the other, and was the seat of occasional throbbing pain. The difficulty was attributed to a blow on the part. Patient in a state of nervous trepidation from the

idea of its cancerous nature. Mr. Ure directed the left arm to be kept steadily bandaged close to the side, with the forearm brought across the chest; the breast itself being simply covered with a piece of lint to absorb the discharge. Without other treatment the cure was complete in ten days. The principle involved is well worth application to other cases now generally treated by laying open the sinuses, or by the use of injections with uncertain result.

Mercury in Syphilis. Mercury still retains its pre-eminence in the estimation of most English surgeons in the treatment of syphilis. In a recent discussion of the subject in the Royal Med. Chirurg. Society, Dr. O'Connor laid down the proposition categorically "that what was good in the treatment of syphilis, was mercury, and what was not good was not mercury; when to use and when to discontinue it was the great desideratum in the treatment of syphilis. The insoluble preparations of mercury he believed to be the most efficient, used externally by inunction, internally, or in the form of suppositories. Iodide of Potassium he believed to be valueless as an antisyphilitic remedy, but much benefit was derived from its use after a proper mercurial treatment, in promoting the elimination from the tissues of the insoluble preparations of mercury already partially acted on by the juices of the body. Besides Iodide of Potassium was a prophylactic to tertiary symptoms."

Mr. Folly and others urged that the greater prevalence of secondary affections at the present time, was the legitimate fruit of the non-mercurial doctrines in vague.

Uses of Glycerin. E. J. Tilt, M. D. of the Farmington General Dispensary considers that Glycerin has Antiseptic properties inasmuch as it speedily gives a healthy appearance to foul, unhealthy, and even pultaceous-looking sores. It is better adapted for liniments than oil being more elegant and cleanly. Although it will not dissolve ordinary fatty matters it readily dissolves the sebaceous product of the skin, and thereby facilitates cutaneous absorption. "Its stability, cleanliness, innocuousness and antiseptic properties make it a valuable ingredient for all the variety of lotions which are applied to the inflamed or to the unhealthy mucus membranes of the mouth, eyes, nose, ears, rectum and vagina.

Starch, eighty grains, boiled in an ounce of glycerine yields

a moderately stiff, tenacious plasma well adapted for all the uses of simple ointment, not becoming rancid, inodorous, not soiling the clothing and readily removable by means of a damp towel. Boiling from 100 to 150 grs. of starch to the ounce of Glycerine gives a very firm and tenacious compound well suited as a basis for medicated plasters, readily holding in solution or suspension all the ordinary ingredients of the plasters now in use.

As illustrative of the uses of the ointment Dr. Tilt gives the following formula which he frequently prescribes in the spinal and pelvic pains attendant on uterine inflammation:

℞ Sulphate of atropia, gr. ij; Glycerine, ʒ ss; Oil of Neroli, gtt. iv; Glycernie Ointment ℥j. M. A portion of this ointment about the size of a hickory nut to be well rubbed in night and morning. ℞ Acet. Morph., gr. x; Otto of Roses, gtt. j; Glycerine ʒ ss; Glycer. Oint. ℥j. M.

Instead of a Belladonna plaster he uses: ℞ Sulph. Atropia, gr. iv; Otto of Roses gtt. j; Hard Glycerine Oint., ℥j. Rub the salt, with a few drops of the Glycerine, and then incorporate all with the ointment. For a compound sedative plaster: ℞ Sulph. Atropia, gr. iij; Veratriae gr. iij; Sulph. Morphia gr. viij; Otto of Roses gtt. j; Hard Glycerine Oint ℥j. M.

Removal of the Uterus and Ovaries. Dr. Charles Clay, of Manchester, England, reports to the London Obstetrical Society "the entire extirpation of the uterus and its ovaries through the abdominal walls, which has ended most fortunately, the lady returning to her friends on the thirty-fifth day after the operation, and still continuing well, thus establishing another great fact in abdominal surgery. The case was that of a fibroid uterus of eleven pounds weight, with the ovaries in an unhealthy condition, and the tumor by its growth had latterly so filled up the cavity of the pelvis as to render the passage of the fæces and urine difficult. Dr. C. does not suppose that many uterine cases could be advisedly extirpated, but thinks some of those densely hard fibroid masses, where the constitution has not been greatly prostrated, might afford a fair prospect of cure under the knife.

Fourth and Fifth Annual Report of the Chicago Charitable Eye and Ear Infirmary, *For the year ending May* 1, 1862, *and the year ending May* 1, 1863. *Presented by the Board of Surgeons.*

The officers of this Charity number some of the leading

citizens of Chicago, and it has been in successful operation nearly continuously from its origination.

Trustees.—Walter L. Newberry, President; William H. Brown; Charles V. Dyer, Luther Haven, Vice Presidents; Ezra B. McCagg, Treasurer; Wm. Barry; Flavel Moseley; Samuel Stone, Secretary; Dr. John Evans; Cyrus Bentley; John H. Kinzie; Philo Carpenter.

E. L. Holmes, M. D., and E. Powell are Attending Surgeons. Prof. D. Brainard M. D., and Prof. J. W. Freer, M. D., Consulting Surgeons.

During the year ending May 1, 1862, *three hundred and ninety-seven* patients, and during the year ending May 1, 1863, *two hundred and forty-seven* patients were under treatment, making an aggregate of *one thousand two hundred and twenty-four* that have been treated since the opening of the Infirmary in 1858.

The following is a classified list of the forms of disease which have been under treatment during the past two years:

Diseases of the Eye.—Wounds and Injuries 34, Conjunctivitis, simple 43, Conjunctivitis, granular 144, Conjuntivitis, neonatorum 24, Conjunctivitis, scrofulous 46, Conjunctivitis, purulent 16, Ulcer of Cornea 17, Opacity of Cornea 18, Staphlyoma of Cornea 14, Foreign Bodies on Cornea 7, Abscess of Upper Lid 6, Iritis 15, Occlusion of Pupil 9, Amaurosis 15, Cystic Tumors of Lids 6, Obstruction of Nasal Duct 13, Trichiasis 18, Inflammation of Lids 17, Strabismus 3, Cataract 12, Entropion 12, Extropion 9, Asthenopœa 13, Pterygium 6, Hydrophthalmos 3, Obliteration of Lachrymal Canals 2; Total 522.

Diseases of the Ear.—Foreign Bodies in Ext. Meatus 8, Otorrhœa 26, Polypus 4, Tinnitus 3, Perforation Membrana Tympani 9, Impacted Cerumen 8, Thickening Membrana Tympani 9, Inflammation of Membrana Tympani 18, Unclassified 37; Total 122.

Of the aggregate number treated, viz., 644, *four hundred and fifty-one* were natives of foreign countries and *one hundred and ninety-three* of the United States

The Surgeons report an increasing interest in the Charity on the part of the benevolent, and congratulate the Trustees on the warm support received from the profession in the Northwest. They remark upon the importance of early attention to diseases of the eye, and the fact that the poor, through fear of the attendant expense, too often neglect procuring proper advice until blindness with its painful incidents results. A large proportionate number of the patients have been children, who without the relief thus afforded, would have been incapacitated for procurring a livelihood or even the rudiments of knowledge. The Report urges strongly and forcibly the establishment of a permanent Infirmary building, such as is to be found in several of the eastern cities. We understand that there are good grounds for believing that the friends of the Institution will soon comply with this appeal to their liberality.

The Dispensary of the Infirmary in Ewing's Block, corner of North Clark and North Water Sts. is open daily, from 11½ to 12½ o'clock, for the gratuitous treatment of the poor, afflicted with diseases of the Eye and Ear.

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ORIGINAL COMMUNICATIONS.

EXTIRPATION OF THE PAROTID GLAND.

By DANIEL BRAINARD, M. D., Prof. of Surgery in Rush Medical College.

Timothy Bradley, of Fond du Lac, Wisconsin, aged 45, healthy, of good constitution, perceived when he was 21 years of age a tumour below the body of the lower jaw. This grew to the size of his "fist" without pain, and was removed in 1850 in Ireland.

About 1858 he perceived it returning in a small tumour behind the ramus of the jaw on the right side. It grew without pain until Jan. 1863, when it presented the appearance shown in the photographic figure. It then extended up to the zygomatic arch, and down to the middle of the neck, forward upon the side of the face, and backwards under the sterno-mastoid muscle, was detached, very moveable, but the skin was adherent to the surface.

Wednesday, Jan. 14th, 1863, I removed it in presence of the Medical Class of Rush Medical College, assisted by Prof. J. W. Freer.

Two incisions were made to embrace the adherent portion of the skin, which was then dissected up before and behind. I then commenced separating it from below upwards with the

finger. This was readily done till the back and upper part was reached where it involved the external carotid and jugular vein, which were tied below and then divided. The dissection was then completed mostly with a blunt instrument. The upper end of the external carotid artery required ligature, and one branch below. The tumor in its growth had drawn the parotid gland out of its place so that it was not difficult to pass an instrument behind its upper part.

When the tumor was removed, there was a space extending from the articulation of the lower jaw below the corner of the Os-Hyoides. The styloid process, stylo-hyoid ligament, the internal jugular vein and internal cerebral artery were exposed, and the space behind and within the ramus of the jaw was cleared.

Pro. Freer, for many years Prof. of Anatomy in the College, examined carefully and could find no trace of the Parotid gland. The right side of the face was paralyzed.

On examination of the tumor, pieces of the gland in a healthy state were found around the upper edge, below this a considerable part seemed composed of the same tissue altered in structure which was softened and redder than natural. At the lower part there was a softer granulated mass, which Dr. Freer examined with the microscope. He found no common cells, but rounded granules with traces of ducts.

Without assuming to decide positively as to the tissue in which this disease originated, it is certain that it involved the whole of the Parotid gland except slight particles above.

To the naked eye the structure of it appeared to be the fibro splastic material. No doubt can, I think, exist as to the removal of the entire gland, which I have removed in two other instances, and the reports of which cases have been heretofore published in this Journal.

The time required to complete the operation was perhaps thirty minutes. The hæmorrhage was considerable, but by tying the external carotid before dividing it, this was partly controlled. No accident happened to the patient, and in twenty days he returned home with the wound nearly healed.

REPORT OF

SEVEN CASES OF GUNSHOT FRACTURE OF THE THIGH, TREATED CONSERVATIVELY.

By R. M. LACKEY, M. D., Surg. 98th Ill. Vols.

Conservative military surgery has had its praises and denunciations, so that if we rely upon the opinions of others as a means of forming a correct opinion ourselves, we will often be greatly puzzled to know what conclusions to arrive at in regard to the conservative treatment of certain classes of wounds. It is not my purpose at this time to advance an opinion and adduce cases in support of it; but I design merely to make a brief report of a few cases that have come under my observation with the hope that it may aid the profession in determining what *are* the advantages of conservative treatment, in the class of wounds to which the following cases belong.

Case I.—Ed. O'Neil 16th U. S. Infantry, age 40 years, has always been healthy and temperate. He was wounded at the battle of Stone River, Dec. 31, 1862. The ball entered anteriorly in the upper portion of the middle third of the left thigh, fracturing and comminuating the bone. He was removed to the field hospital near the battlefield and but little dressing used besides bandaging the limb; no erysepelas or gangrene occurred, and at this date April 20, 1863, there is firm union of the bone, and but little discharge from the wound. There is considerable angularity of the limb and two inches and a half shortening. With care he will be able to be around on crutches in about a fortnight.

Case II.—Jno. M. Whortenbury, Private 15th Reg. Vols., 18 years of age, temperate habits and tolerably good constitution.

He was wounded at Stone River, Dec. 31st, 1862, by a

minnie ball which entered anteriorly in the lower third of the left thigh, producing a comminuated fracture of the bone. The treatment locally, consisted chiefly in the application of a bandage to the limb, and the constitutional treatment, in tonics, nutricious diet, &c. No erysipelas or gangrene has occurred up to this time, and there is now firm union of the bone, and if nothing unfavorable supervenes he will be up in a short time. There is shortening of two inches and a half. According to the account this boy gives, he was evidently wounded by a minnie ball at short range.

Case III.—Jas. Gilloghy, Private 21st Ill. Vols., 28 years of age of good constitution; was wounded at Stone River, Dec. 31st, 1862. The ball entered posteriorly, fracturing the thigh in the middle third. The treatment in this case was about the same as that used in the preceding ones. No erysipelas or gangrene occurred. At this date there is firm bony union and a starch bandage has been applied and the man is going around on crutches. There is but little angularity and the limb is only an inch and a half shortened. There was in this case evidently but little comminuation of the bone as there were no spiculæ came out of the wound, and the shortening is less than in the other cases. No extension was used in either of the cases.

Case IV.—Thomas Thomason, Private 15th Wis. Vols., aged 19 years; was wounded at Stone River, Tenn., Dec. 31st, 1862. The ball entered posteriorly in the middle third of the thigh, and lodged beneath the skin on the anterior portion of the thigh, a little above the knee joint. The point of fracture was in the middle third. There is still some discharge of matter from both openings, and the patient is considerably emaciated; he is in better condition now, however, than he has been at any time since he was wounded, and if he continues and improves as he has been doing, there is every reason to believe that he will recover with a tolerably useful limb. There is shortening of two inches in this case.

Case V.—Andrew Cox, Private 88th Ill. Vols., aged 32

years, was wounded at Stone River, Tenn., Dec. 31st, 1862. The ball entered anteriorly in the middle third of the thigh and emerged posteriorly two inches lower than it entered. The femur was fractured and comminuated at about the union of the middle and lower third. He was removed to Hospital No. 1 Murfreesboro, and the limb placed on a double inclined plane, where it remained until a few days ago, when a starch bandage was applied and the man is now going around on crutches. There was, I think but little splintering of the bone in this case, as there were but few spiculæ came out, and the wounds closed unusually soon. No erysipelas occurred. There is two inches shortening of the limb. This man refused a discharge from the service and insisted that he could be useful yet as an ambulance driver. Gunshot fracture of the thigh is not so fearful a wound, when it occurs in a man of the physical endurance and *pluck* of Andrew Cox.

Case VI.—John Handy, private, 101st Ohio Vols., aged 26 years, received gunshot fracture at Stone's River, Dec. 31st, 1862. The ball entered on the outer side in the lower third of the thigh, passing through and fracturing the femur. Spiculæ of bone came away with the matter discharged from the wound, for a long time. The limb was placed in straight position and but little dressing applied. There is now bony union and the wound is almost closed. This case now promises to be happy in its results.

Case VII.—Private Sanders, 36th Ills. Vols., aged 18 years, was one of the brave boys who fought so stubbornly on the "right wing" at Stone's River, and he was wounded on the memorable 31st of Dec., 1862. He says he was struck at short range and by an Enfield rifle ball, which entered anteriorly in the upper third of the left thigh. The treatment was simple: the limb placed in a straight position, without splints, and kept well cleansed. The bone is united and the boy's general condition is good; there is still some discharge from the wound, but the case bids fair to be successful. There is a shortening of about two inches and a half. A large number

of spiculæ of bone have come away, showing that there was extensive comminution.

The course of procedure recommended by Guthrie in this class of wounds is seldom adopted by our Surgeons. He says (page 151, Commentaries of the Surgery of War,) "An examination by the finger in the first instance is necessary to ascertain the extent of injury to the bone, and to enable the Surgeon to remove the broken portions, as well as the ball and any extraneous substances that may be in the wound. The incisions necessarily required for this purpose in the thigh, are sometimes neglected, or the Surgeon refrains from making them from the great thickness of the muscular parts, &c." Now the incisions referred to here are, according to my observation, for some reason seldom made by our Surgeons, and I think there is no doubt but that more cases of this kind of injury could be successfully treated, if dilatation of the wound by incision was more frequently resorted to. It was once the common practice with military Surgeons to dilate, by incision, the wound made by the ball, with a view of "limiting the inflammation." John Hunter pointed out that an incision could not alter the nature of a contused wound, and only superadded another injury to the one already inflicted by the bullet, and since that time the practice has been reprobated by most Surgeons. One writer on Military Surgery, (Baudens,) calls the process "useless and barbarous," and as a means *merely* of limiting the inflammation, the operation is certainly unnecessary, but for other purposes I regard it as highly useful. In the majority of cases of this nature, death occurs from exhaustion and vitiation from long continued irritation and suppuration, the matter often burrowing among the tissues and forming cavities where it remains until it becomes exceedingly offensive and the structures around become gangrenous. I regard the operation of great importance as a remedy for those evils; the best means of lessening inflammation in a gunshot wound, and one that is in most instances successful, is by cold irrigation, water dressings, with rest, &c. The main advan-

tages in making a free incision, enlarging either the aperture of entrance or exit, are in affording a free exit for the matter and spiculæ of bone, thus lessening the danger of exhaustion from long continued irritation, and avoiding the evil consequences attending the burrowing and retention of the discharges. These incisions should be made primarily and at whichever aperture is most dependant, provided, an incision made in the direction of the axis of the limb, at this point does not involve important structures, as blood vessels, nerves, &c. The loose spiculæ of bone, and any extraneous substances, should be removed at once and a free opening maintained to afford an easy exit for any pieces of bone or sloughs that may subsequently separate.

Patients sometimes die after the bony union has taken place and in these cases, upon examination, it will be found that the pus and blood have burrowed, for want of a free external opening, and formed cavities among the muscles, and the patient eventually dies from the extensive disease of the soft parts, after bony union is complete. When I first saw Ed. O'Niel, (Case I,) about two months and a half after he was wounded, I had but little hope of his recovery. There had been no incision made to allow the discharges to escape readily and cavities filled with pus and blood were found even among the Glutei muscles. I made a free opening and after the matter escaped injected a solution of Iodine, which was repeated for several days, and there was soon a decided improvement in the man's general condition, and the discharge became less and more healthy. Bandaging the limb is useful in preventing the infiltration of blood and pus among the tissues, but it is difficult in most cases to apply a bandage without causing the patient great suffering in moving the injured limb.

It is of great importance that the patient should have a bedstead and good mattrass to lie upon; few cases of gunshot fracture of the thigh get well in less than three months, and it requires great care to prevent the occurrence of bed-sores. The straight position I regard as the best, and but few and light dressings and splints can be applied with advantage.

I have not seen "Smith's Anterior" used, and I think there are but few cases in which it is applicable. Good diet, egg nog, whiskey toddy, wine, &c., are essential in the constitutional management.

War is not an agreeable occupation for the *many*, and particularly not for the soldier when he has the misfortune to receive a gunshot fracture of the thigh, for under the best and most careful treatment, in a majority of cases, the patient dies after days and it may be months of intense suffering.

Murfreesboro, Tenn., April, 1863.

[Remarks.—The preceding cases of Surgeon Lackey are valuable, and the suggestions he makes judicious, although some of the cases may terminate fatally from presence of diseased or necrosed bone. In compound fractures of the femur from balls, unattended with division of the principal vessels, or the Sciatic nerve, I should recommend an incision to extract fragments of bone &c., which should be kept open by a tent, extension by a weight and pulley, as used by the old surgeons, and revived by Dr. Buck of the N. Y. Hospital. I used this treatment in the case of Capt. Shipman, 1st Wis. Cavalry, wounded at Cape Girardeau, by a pistol ball on the outside of the femur below the trochanter minor, and removed 17 fragments, some of them more than three inches long. Four weeks after the operation he was doing well.

The injection of a weak solution of Iodine as an antidote to the effect of absorption is important. D. B.]

CASES OF CEREBRO-SPINAL AFFECTION.

By R. E. McVEY, M. D., Waverly, Ill.

I propose to give in outline a brief history of four cases of the so-called Cerebro-Spinal Affection as it has presented itself in my practice of late.

Case I.—Feb. 17th, was called to see Mr. D. S., who had

been sick about twelve hours. Taken with a chill, followed by high febrile excitement and pain in the head, back and legs. Upon my arrival I found him in a moribund condition, consequently gave him nothing. Death taking place in about two hours after my arrival.

Case II.—March 4th, was called to see Mr. C. C. H., who had had a chill. Upon my arrival I found him under high febrile excitement, with pain in the head, back and legs. Suffusion of the eyes, stiffness of the muscles of the neck, and delirium, tongue coated with a thin whitish coat, bowels constipated, pulse about 140 per minute. Treatment, Mercury, Anodynes, Cold Water to the head, Verat. Viride.

7th. Saw him early in the morning; medicine had acted well, pulse 125, skin moist and red, difficulty of passing water, growing weaker. Treatment, Mercury continued, blister to the whole length of the spinal column, cold to the head, Quinine and Dover's every two hours.

8th. Comatose, spasms of the left side of the face. Bled him freely from arm. Continued cold to the head, gave Verat. Viride. Evening, moribund. Death taking place in a short time.

Case III.—April 29th, called to see Mr. A. H., who had had a chill, followed with high febrile excitement, and redness of the eyes, and pain in the head, back and legs. Not differing particularly from the one given above. Death occurring the fourth day.

Case IV. June 12th, was called to see Mr. S. F. about noon, who had had a chill early in the morning. When I arrived I found him under high febrile excitement, pain in the head, back and legs, and delirium, pulse 150, eyes congested, tongue slightly coated, bowels constipated, skin hot, with petechiæ over the extremities. Treatment, Mercury, Anodynes every two hours, with cold to the head.

13th. Saw him early in the morning, delirium increased, bowels moved freely twice in the bed, surface cold, pulse had disappeared at the wrist. Treatment, Carb. Ammonia, Stim-

uli, and blisters to the extremities. Evening, skin warm, pulse about 100. Gave Quinine, grs. vi, Submuriate, grs. iii, every three hours.

14th. Morning, growing weaker. Discontinued the Quinine and Mercury. Gave him Stimuli, Capsicum, and Carb. Ammonia. Evening, still failing. Died at 11, p. m. There were no post mortem examinations.

CAMP DIARRHEA, NEAR VICKSBURG.

June 22nd, 1863.

Being in camp here about five weeks, crowded into a ravine, the men prevented from having the atmosphere of the hill tops by the enemies sharp shooters, and not procuring sufficient and suitable rations until quite lately, and being without sufficient tents and clothing to prevent them from the cold and dampness of the night, when Gen. Grant's army were on the march from Grand Gulf to this place, with all their fighting and fatigue—is it strange, that we should have many cases of Camp Diarrhea? Most cases in this regiments complain of pain across the abdomen below the umbilicus.

In some cases it is very severe, accompanied with tympanitis; others quite light. It is seldom a continual pain. There are some dysenteric cases where pain is lower down. Pulse in most cases natural, but not always. When there is pain in the epigastric region and at the same time vomiting, it is obstinate, unless promptly treated. There are but very few cases of this kind. I have noticed three different grades of the tongue. Sometimes covered with a yellow coat, at other times fissured with short deep fissures. The tongue in this case is large pale and flabby. Again having almost a natural appearance. Having charge of the Regiment in the field, I am obliged to depend on patients concerning the color of their stools which varies more than any one symptom. Some are

green, others dark, some tell me their stools look like water.

There have been a number of cases within the last few days with hemorrhage from the bowels, without much pain. The stools are large and frequent, it soon brings on lassitude and debility, unless checked in which I have found, no difficulty. But I am informed in another brigade, near by, many such cases prove fatal.

It is not dysentery, it wants the pain, fever, and other symptoms. In all cases the powers of digestion are weak. Food of easy digestion passes the bowels as taken into the stomach. The treatment must vary. In some cases with a clean tongue, with or without pain over the abdomen, opium from one to two grain doses, combined with either alum, tannin, or plumbi acetatis, has a good effect without any other treatment. In cases where alum was used, there was less pain and bloating after the diarrhea was checked. In those cases where there is severe pain with tympanitis, and the tongue covered with a yellow coat, the following powder has satisfied me, Calomel grs. x. to xv. bi-carb. soda grs. x. to xv. Ipecac gr. iss. M. The bowels move free with less pain. They complain no more of headache, &c., and, many cases without further treatment are well in a short time. But after this, if necessary, opium and astringents cure if given before, increase the difficulty. In those rare cases of obstinate vomiting the ancient powder of small doses of Calomel once in two hours, operate well; combined if the stools are green with bi-carb soda. When accompanied by hæmorhage the following powder has (in my cases) controlled it: Opium gr. j. Pulv. Camphor grs. ij. Acetat of Lead grs. iij. M. Leaving the patient with some pain but it would not last long.

Army surgeons are well aware, they have not under their control (for the privates), the most essential remedy, *good diet.*

GEO. WINCH, M. D.,
Assistant Surgeon 29th Reg. Wis. Vol.

FOREIGN CORRESPONDENCE.

London, June 30th, 1863.

Prof. E. Ingals, M. D.,—*My Dear Doctor*, I embrace this my earliest leisure moment to fulfill my promise to write you from London. By a hasty look at medical matters here one can but be fully impressed with the fact that the material for clinical study is abundant, for in a city which contains three millions of people, and has so many well organized Hospitals in one or other of which every variety of disease is treated, every facility is offered to the medical student.

In some respects the London Hospital is favorably situated especially for the student of Surgery. It is in a part of the city where accidents are of frequent occurrence, such as fractures, dislocations, contusions, &c., and I am told that it is not an infrequent circumstance for students to leave other hospitals for a time and go to the London to familiarize themselves with the mode of treating these injuries, which they are in the habit of styling "the study of coarse surgery." Mr. Luke, who was for so many years connected with this hospital, and was among its most active officers, has retired, and devotes himself to a lucrative private Surgical practice. Mr. Critchet has also just resigned the office of Surgeon here, and has been succeeded by the appointment of Mr. Hutchinson, whose advancement is spoken of as remarkable, he having been first elected assistant Surgeon only about four years since.

One of the oldest and largest hospitals in the city is St. Bartholomew's. Here Mr. Paget is one of the leading Surgeons. He is a neat and dextrous operator. I noticed on his operating day that he prefers the circular to the flap operation in amputations of the thigh. As a lecturer he is agreeable, clear, concise, and graphic. A considerable portion of this hospital is appropriated to the diseases peculiar to females, and is under the direction of Dr. Greenhalgh, who was elected

Professor of Obstetrics, &c., about a year and a half ago. Having so recently entered upon the discharge of his duties in so large an institution, the Doctor is, as we might expect, industrious, vigilant and enthusiastic in the profession, and I may justly add he is a successful physician. The opportunity afforded him for testing the various methods of treating the numerous diseases to which females are subject, is quite unlimited, and is embraced to the fullest extent. The incision of the neck of the uterus for the cure of dysmenorrhœa is just at present the practice that seems to attract considerable attention at St. Bartholomew's, the results of the practice are represented as being highly satisfactory. While there is nothing new in the principles of this practice, its general adoption would hardly meet the approbation of the judicious physician in private practice. The Actual Cautery is frequently resorted to here, in cases of ulcerated os uteri, and with benefit in some cases, but I was led to infer that much annoyance was sometimes experienced by the extension of inflammation to the peritoneum, or causing pelvic cellulitis. The line between Medical and Surgical practice is distinctly marked here, as an instance a patient with procidentia uteri had obtained no relief from any of the numerous appliances resorted to, it was then decided to extend the perineum by causing a portion of the vulva to unite, which the obstetrician was willing to undertake, but etiquette required that the patient be removed to the surgical ward.

At the University College Hospital I witnessed the operation of Lithotomy by Mr. Errichsen, which was performed rapidly, but it is not usual that such troublesome hemorrhage is met with, as in this case. In the Obstetric department Dr. Murphy still gives the lectures as he has done for twenty years. His style is plain and his teaching practical. He has just issued the second edition of his book, which is considerably more comprehensive than the first, embracing now the main topics of a general course. Here the practice differs from that followed in some other places in London; the hysterotome and the actual cautery

are less frequently brought into requisition, much attention is given to correcting the *general health*, with the effect of removing local symptoms, and the same is true of the practice in this department in St. George's Hospital, where Dr. Lee denounces in no measured terms, the "cutting and burning" as French innovations which ought not to be countenanced.

The Samaritan Hospital is devoted to the treatment of diseases of females. Here a number of interesting cases may always be seen. The Surgeon of this institution, T. Spencer Wells, Esq., is just now doing considerable in the way of Ovariotomy. I witnessed the extirpation of a large ovarian tumor by him yesterday and was struck with the embarrassments which are liable to arise in this operation, even with a dexterous operator. I was unable to learn the per-centage of success of the operation here, but I find that the "Surgeons" have not adopted it as one of the ordinary operations. I met with eminent men here who represent the mortality from Ovariotomy as "fearful."

In the "London Surgical Home," which receives none but female patients, I saw several interesting cases. This is the institution where I. Baker Brown performs most of his operations. He attempted the restoration of the recto-vaginal septum on the day of my visit, which was the second attempt upon the same patient. He promised that one more operation would make the case complete. His operations are spoken of by the profession as being generally successful, without any novelty in the mode of their performance.

I was greatly pleased with my visit to the "National Hospital for Paralysis and Epilepsy," which is attended by Dr. Brown Sequard, who is without question the "right man in the right place." At this institution may be seen a large number of patients affected with various chronic diseases of the nervous centres. I was forcibly impressed with the careful manner of conducting the examinations of patients, the critical analysis of symptoms, and the candor and frankness in announcing opinions when difficulty arose. Every physician of any considerable experience, is fully aware of the obscurity of many cases of this class of diseases. I have seldom met a man in the profession whose acquaintance produced a more favorable impression upon my mind, than Dr. Brown Se-

quard. I found him an agreeable gentleman, as he is a profound medical scholar and successful physician.

At my visits to the "Museum of the Royal College of Surgeons" I could but notice the remarkable beauty, as well as the great number of preparations, many of them the work of the celebrated John Hunter, illustrating Anatomy, Physiology, Pathology, &c., &c., to study which would require many weeks of industrious application. As I could not study all, you will not be surprised that I devoted most of my time to the Obstetric department, which is so extensive and complete that little is left to be desired.

The medical lectures from certain chairs are given here during the summer season, a number of which I had the pleasure of hearing. While I was prepared to find less interest on the part of the classes of students, than I had been accustomed to see in the United States, I was surprised to hear a very good lecture, well *written*, read to a class of but eight students in the great city of London. When the number present was somewhat larger, I found that the roll was called, and each student was obliged to answer to his name under penalty.

I can not avoid the reflection that it is unfortunate for the student when the Professor is led by party prejudice or personal inclination to give but a partial view of a subject; that the discussion of a subject under such circumstances, however spirited, or however much talent and learning may be displayed, is unprofitable to the tyro, is not problematical.

My visit to London has been one of uninterrupted pleasure as well as profit, and the remembrance of it will ever excite in my mind the liveliest emotions of obligation for the uniform kindness and courtesy extended to me by the medical gentlemen with whom I met.

I leave to-morrow for Paris.

Truly yours, M.

CONTINUED HISTORY OF A CASE OF "GOUGING."

By E. L. HOLMES, M. D., of Chicago,

One of the Surgeons of the Chicago Charitable Eye and Ear Infirmary.

In a former number of this Journal (December, 1859,) may be found the history of a case of injury of the eyes which has scarcely a parallel in the annals of Ophthalmic Science. I have lately had an opportunity of examining the patient, and hope an account of his present condition will not be uninteresting to the reader of the *Journal.*

For the benefit of those who may have forgotten the previous history of the case, I may state that an Irishman, 37 years of age, was attacked by some one, who forced his thumbs with such violence into the patient's orbits, as to rupture both globes. For six weeks the patient remained in the southern part of this State, totally blind, and received, as he stated, no other treatment than repeated doses of Sulphate of Magnesia, internally, and wet compresses locally. At the expiration of this time he was able to distinguish light, and gradually regained indistinct vision of large objects. Five months after the assault the patient came under my care. With the right eye he could see light and the shadows of objects passed in front of the eye; with the left eye he could, with a little assistance from an attendant, conduct himself in any of the streets of Chicago. The cornea of each eye was perfectly normal in appearance. The upper and inner sixth of each iris was absent; it had apparently been torn away, as in an operation for Iridiotomy. The pupils were consequently elongated. Near the inner extremity of each pupil was a cicatrix, at the union of the sclerotied and cornea, in which were involved particles of pigment, probably from the iris. A rupture of the globes had, without doubt, occurred at this place, and through the opening had evidently been forced the lost portion of iris and crystalline lens of each eye, for in neither eye could a trace of the lens be fonnd. Trembling of the iris, usually observed after the removal of the lens, was absent in both eyes, probably on account of tension of the radiating fibres of the iris, produced by their contraction during cicatrization.

The vitreous humor of each eye was shown by the Ophthalmoscope to be so clouded with fine and black particles floating in its substance, that the vessels of the retina and the papilla of the optic nerve could be readily seen, especially in the right eye.

By the use of a simple supporting treatment the patient was so far improved in four months as to be able to walk without assistance and to read large signs across the streets, although he could not, even with the aid of double convex lenses, distinguish minute objects. The vitreous humor of both eyes had become nearly transparent, although vision of the right eye had not improved.

A few weeks since, more than three years and a half after my former report, the patient again consulted me in reference to his vision. Five months previously the perception of light in the right eye began to fail and in less than four months it was wholly extinct. The vision of the other eye has remained as before with possibly a slight improvement. The only change observable by simple inspection, is a marked trembling of each iris, which, it will be remembered, was not present three years ago.

In the right eye neither papilla nor vessels can be discovered with the Ophthalmoscope. Even the peculiar red disk almost invariably observed through the pupil by the Ophthalmoscope, cannot be seen.

By means of light concentrated by a powerful double convex lens obliquely upon the cornea, and thrown into the pupil a dark bluish mass can be seen lying behind the iris; this is undoubtedly the retina which has been detached from the choroid.

The papilla of the other eye is of an oval form and of a greenish blue color. It appears smaller than in a normal eye. The line of demarkation between the papilla and the retina is very distinct, except at its upper and outer portion, where a part of the optic nerve seems to be covered with lymph. Whether the oval form of the papilla is produced by an in-

crease of convexity in the cornea in the direction corresponding to the long diameter of the papilla, I am unable to say.

The vessels of the retina are finer than in a normal condition of the eye, and appear more like solid threads than like vessels. The absence of the lens, which has a large magnifying power, will account for the apparent decrease in the size of the papilla and vessels. The red appearance of the retina and choroid is somewhat darker than normal, and different portions of these membranes seem of a different shade of redness.

Peoria, July 29th, 1863.

Eds. Chicago Medical Journal:—Having been sent by this city with the Sanitary Commission to Vicksburg, on the City of Alton, to attend to our wounded during the siege of that stronghold, and having visited Shiloh battle-field on the same mission over a year since, and Perryville, Ky., last fall, I feel it my duty to bear testimony to the efficiency of the Medical Corps of the Army. That they are discourteous to civilians I have never found, either on these battle-fields, or in the hospitals of Louisville, Danville, St. Louis, Mound City, Memphis, or any where else. On the contrary they have shown me every courtesy, and as a rule they are men of high moral tone of character, men who have kind hearts as well as skillful hands, men worthy of better pay and more praise than they have received from some presumptuous nurses, who never before, at one time, saw over three sick together. It is a shame that our army medical men are no better paid. Every Surgeon should rank as Colonel, and when in charge of Brigades or Divisions should rank and receive pay as Brig. General.

Then our best Surgeons would go more freely, and those who are competent would not resign so often. "Conservative Surgery" is now all the rage with army Surgeons, and while they cut unmercifully last year, this year they are a little too loth

to use the knife. But so it must be, we mortals are always on one extreme or the other.

The Government has now very ample facilities for treating all who may need medical care, save in very extreme cases. In all the armies of the Northwest I have met graduates of old Rush College, who, I am glad to say, in every case to my knowledge, have given unusual satisfaction. Dr. E. Powell, of Chicago, was recognized by Gen. Grant as a man of unusual ability, and placed in a high position, which but proves that true merit will not go unrewarded even when possessed by so modest and unassuming a man as Dr. Powell. All honor to our noble brethren who have sacrificed the comforts of home and family, and dared the uncertain sway of battles, not for pay, not for honor, but out of the promptings of humanity, in their noble hearts, towards their suffering and helpless fellow men.

M. M. EATON.

SELECTED.

CALOMEL AND TARTAR EMETIC IN THE ARMY.

The recent order of the Surgeon-General striking calomel and tartar emetic from the Supply List, has naturally excited a large amount of discussion and criticism in popular and professional circles. Quacks of every shade and complexion, from the infinitesimalist to the humblest dealer in roots and herbs, are exceedingly jubilant and profusely congratulatory. The old-school practitioner, who has to grapple daily with disease in all its multiplied forms, and solve the abstruse questions in therapeutics by actual experimentation, and who has come to give his faith to calomel and tartar emetic as his unfailing weapons in affections of great severity, fancies that a deadly blow has been aimed at his long tried and faithful allies. But students in the school of modern pathology and physiology look on with indifference, feeling that they have little or nothing at stake in the issue.

Thus far in the discussion of this order two questions have been raised :—1st, The propriety of the order, and, 2d, The propriety of removing from the Supply Table the articles referred to. The consideration of these two propositions evidently covers the whole ground. Let us examine them in detail.

It will not be denied that it is the duty of the Surgeon-General to regulate the Medical Supply Table. Annually, or oftener if necessary, the list of remedial agents to be employed by the Medical Staff must be revised, and such remedies added or stricken from it as the service may seem to demand. And the aggregate quantity to be used within a given time for a given force is also prescribed. No one questions the necessity or propriety of this revision of the Supply Table. It has never yet been alleged that in the discharge of this duty the Surgeon-General was impertinently interfering with the practice of the Medical Staff. Nor until now did it ever occur to any one that by this act the Surgeon-General reflected upon the professional qualifications of the surgeons of the army. On the contrary, the army surgeon has always been gratified at the revision of the table, for it seldom happened that new and important remedies were not added, and old and obsolete compounds stricken off.

The reason given in the order for striking calomel from the Supply Table is its abuse by military surgeons. The Surgeon-General states that he is officially informed that not only has profuse salivation been produced in innumerable cases, but that mercurial gangrene is of not infrequent occurrence. Finding it impossible to properly restrict the use of this powerful agent, he has ordered it stricken from the list of remedies furnished by the Department. He adds that he issues such an order with the more confidence, "as modern pathology has proved the impropriety of the use of mercury in very many of those diseases in which it was formerly unhesitatingly administered." That the Surgeon-General has presented sufficient reasons for his orders no one not stubbornly wedded to antiquated ideas can deny. The correctness of his information in regard to the lamentable consequences following the abuse of calomel no one will doubt who has visited many military hospitals, and inquired particularly as to the practice. A certain class of physicians almost invariably employ calomel, and always administer it in cases of doubtful diagnosis; and they are not satisfied unless they produce its constitutional effects, believing that it is only under such circumstances that it

is effectual. We have known of its exhibition in military hospitals to salivation in chronic diarrhœa, Bright's disease, chronic rheumatism, etc. But it may be said that in certain diseases it is acknowledged by all authorities to be useful, and is the army surgeon to be deprived of mercurials because certain persons abuse calomel? We answer, certainly not. There are still on the Supply Table several of the more eligible and useful preparations of mercury. There is the blue mass, mercury and chalk, bichloride, iodide, etc., all much more elegant than calomel, and far more likely to give the beneficial effects of mercury without the unfavorable results.

That modern pathology has very much limited the class of diseases to which mercurials have been considered especially applicable, is apparent on every page of our recent works on practical medicine and surgery. Within twenty years, from being one of the most frequently employed agents of the materia medica, it has come to take a very subordinate position. And it should be a cause of sincere congratulation with every practitioner that, with the advance of modern pathology, a remedy of so much power for evil, if injudiciously used, is gradually being supplanted, whether by a more correct knowledge of its therapeutical uses, or by more eligible and more intrinsically harmless agents. The same remark is true of tartar emetic. This article the Surgeon-General has also stricken from the Supply Table, "for the reason that diseases prevalent in the army may be treated as efficiently without tartar emetic as therewith."

After a careful review of this subject, with an extended observation among the military hospitals, and of inquiry among army surgeons, we are compelled to regard the order of the Surgeon-General as a judicious, and even a necessary measure. In the opinion of the best medical officers, in no other way could the evil have been successfully reached. Fully confirmed in this view, we must regard the harsh criticisms of the Surgeon-General by certain medical conservatives as exceedingly unwise and unjust. We believe that in this order, as in all his official acts, he has not only endeavored to advance the best interests of the army medical service, but equally to maintain the honor and dignity of the profession of which he is a distinguished member.—*Am. Med. Times.*

DISINFECTANTS AND THEIR APPLICATION TO THERAPEUTICS.

Conclusions from facts contained in a memoir upon the subject published in the *Archives Générales*, by O. Reveil, Professeur agrégé à la Faculté de Médecine et à l'école superieure de Pharmacie, &c., &c.

1st, That there probably exist many kinds of putrid fermentations, varying in their causes as in their effects.

2d, That there is no general disinfectant capable of being indiscriminately used in all cases;

3d, That liquid disinfectants are always preferable to others, other things being equal, when applied in therapeutics.

In their application to this purpose regard should be paid to their cost, the facility of their employment and the inconveniences they may cause by corroding, soiling or rendering unserviceable the linen dressings.

4th, The best disinfectant is that which possesses the following properties:—it should—A. Instantly destroy or mask bad odors; B. Absorb the liquid or gaseous products of the putrefactive or inflammatory process, remove them by washing and destroy the poisonous or irritating action of morbid liquids and mephitic gaseous products; C. Prevent the formation of new infections or mephitic products; D. Hasten the cicatrization of sores, by giving the necessary vitality for the reparation of the tissues.

5th, Chlorine, and solutions of bromine and iodine, appear to best fulfill the most important of these conditions.

6th, Chlorine, or at least the hypochlorites, by reason of the gaseous state of their active principle, ought always to be preferred when it is desired to destroy miasma and disinfect the air.

7th, The addition of odorous essences, and principally of nitro-benzine to the hypochlorites and to iodine and bromine-water, acts both to mask the disagreeable odors and to set into immediate operation the chemical action.

8th, Tar and coal-tar preparations are able to render effectual service, but they do not possess the property, like iodine and bromine, of destroying the poisonous action of morbid products and putrefaction, or that of various kinds of virus.

9th, *Charpie carbonifere*, and especially *charpie carbonifere iodée*, may be often employed with success.

10th, Carbon, in addition to its absorbant properties, appears to exercise *an action of special contact*, in virtue of which it hastens the destruction of organic matters, or rather, as M. Stenhouse states, according to the experience of Turnbull and Turner, by condensing the oxygen of the air, and thus acting as spongy platinum.

11th, Metallic solutions (salts of iron, zinc, &c.), although imperfect disinfectants, suffice in a great number of cases.

12th, Physical and mechanical agents (ventilators, &c.) may be made powerful aids to chemical disinfectants.

13th, There are some causes of *infection* which appear to resist all treatment (ozæna, otitis, &c.)

14th, We should add, moreover, that there are causes of *infection* which it would be dangerous to suppress (*sueur infecte des pieds*), and the odor of which we should endeavor to mask.

One is struck with admiration on reflecting upon the processes which nature employs to disseminate, transform and reproduce organic matters; in the presence of the grandeur of these facts, we remain convinced of the exactitude of the aphorism of Lavoisier:—"*Dans la nature, rien ne se perd, rien ne se crée.*"

M. Reveil alludes above to the so-called fœtid foot-sweat, and thus sustains a popular error both ofpathology and therapeutics. Fœtid foot-sweat does not exist. The perspiration is always fresh when secreted, and any peculiar individual odor is due to specific modifications in the sebaceous matter. It is only when the sweat has undergone decomposition upon certain portions of the body peculiarly adapted to such change, as the axillæ, beneath the mammæ, between the folds of the prinæum, &c., that the fatty acids thus formed give rise to a fœtid odor. So, too, when the feet are not frequently cleansed, and heavy coverings are worn upon them, the boot is apt to absorb the odors thus produced, and to become in turn the real offender. We have noticed this peculiarly disagreeable smell about the persons of several officers returning from the army, where thick stockings and heavy-top boots are often worn day and night without change for a considerable time. The idea of any dangerous consequences following simple cleanliness, which is the only disinfectant required, is absurd. The worst case of fœtid foot sweat may be cured at once by casting away the stinking boots, and substituting thin stockings and light boots or shoes, and by washing the feet every day in soap and water.

PARTIAL DISLOCATION OF THE HEAD OF THE RADIUS IN YOUNG CHILDREN.

By DANIEL V. FOLTS, M. D., Boston.

This is an injury which the surgeon not unfrequently meets with, without fully recognizing the anatomical seat of the accident. Several cases have occurred in my surgical practice during the past season, and in every case but the last, the particulars of which I shall give in detail, whilst the usual symptoms were present, in manipulating to ascertain the nature of the injury the pronation was suddenly overcome, and the limb was at once in as useful a condition as ever.

My last case occurred in a little boy of five summers. While at play he was caught by an older brother, when both hands were thrown behind him in a state of extreme pronation. He was forcibly held in this position, and whilst struggling to escape from his captor, he screamed out violently in intense pain. I saw him soon after, and found him still crying. His arm was hanging by his side, a little in front of his body; elbow slightly bent, hand pronated. To the question "what is the matter, my little boy?" he answered, "A. has hurt my elbow." I examined this articulation carefully, but could not detect the slightest deformity. Flexion and extension could be performed almost without pain; but on the slightest attempt to supinate the hand, the little fellow would scream in agony. An anodyne application was directed, and the arm placed in a sling. He slept well during the night, and made but little complaint the following day; but was not at all inclined to use the arm.

I took occasion, the following evening, to examine the arm when my patient was sound asleep, thinking it possible that the fear of being hurt prevented him from using the arm, or suffering me to rotate the radius. But the slightest attempt to alter the position of that bone relative to the ulna would awaken him, by the violence of the pain. I now concluded to etherize him, examine the fore-arm and elbow carefully, and make forcible supination if that should be necessary. After a few inspirations he opened his eyes and made the chamber ring with his laughter. How much better to make him laugh, than cry! "That is a funny rag," he said, "let

me smell it more." And then he would break out again and again in peals of laughter. I never saw the ether have a more pleasant effect upon a child. I now proceeded to examine the limb very carefully. The wrist was perfectly normal, and the elbow, with the exception of a slight swelling, free from all deformity. Grasping the wrist with my right hand, and holding the elbow in my left, with a thumb upon either extremity of the radius, I made forcible and extreme supination. There was some resistance at first, but soon I felt a slight shock and heard an indistinct snap under my left thumb. All resistance was now overcome, every motion of the joint was perfect, and has continued so to the present day.

This case settles the question, in my own mind, as to the seat of the "injuries of the arm in small children," that are of such common occurence, and about which so little that is satisfactory can be found in our ponderous tones of surgery. In the present case, we have the most satisfactory evidence that it was the elbow, and not the wrist, that was injured; that it was the head of the radius, and not the inter-articular fibro-cartilage of the wrist that was involved. My patient was an intelligent little fellow, and just as capable of locating pain as an adult, and he complained exclusively of the elbow.

The symptoms in this case were precisely the same as those M. Goyrand, of Aix, enumerates in his observations; but the reduction entirely disproves his theory, whilst it confirms the opinion of Dr. Hodges, of this city, as set forth in an article published in Volume Lxvii., page 129, of your Journal. In the cases published by both these gentlemen, the patients were so young that they could give no reliable indications as to the precise locality of the injury. They would cry when the limbs were moved, but that was about all: there was evidently pain somewhere, but it was left for the surgeon to ascertain its seat as best he might; and in most cases, as we have seen, whilst he was manipulating, the injury disappeared before a satisfactory diagnosis could be made out. But in this case the reduction was less easily effected. Even after the patient was fully etherized, the same obstacle to its accomplishment seemed to exist as before, and any slight attempt to rotate the radius, outward, was brought up by some mechanical impediment. This enabled me to handle the parts more at my leisure, and to take every precaution to ascertain accurately which end of the radius was involved. The peculiar snap attending the reduction, though much more feeble, of

course, was in its nature not unlike that which every surgeon has felt when the head of the humerus glides back into its glenoid home.—38 *Maverick Square*, *June*, 1863.—*Boston Med. Journal.*

CLINICAL LECTURE ON SUBACUTE AND CHRONIC RHEUMATISM.

Delivered at St. George's Hospital,

By HENRY WM. FULLER, M. D.,

Physician to the Hospital.

Gentlemen: In my last two lectures my observations were confined to cases of acute rheumatism, or rheumatic fever; to-day I propose to bring under your notice some varieties of disease which pass under the title of chronic rheumatism. Before doing so, however, I would say a few words respecting the cases admitted into the hospital under the title of subacute rheumatism—cases characterized by more or less swelling of the joints, with slight feverishness, acceleration of pulse, and coating of the tongue; but nevertheless not ushered in by rigors, and not marked by that degree of fever and excitement of the circulation, nor by the same amount of coating of the tongue, nor by the profuse sour-smelling perspiration and loaded urine, nor by the redness and exquisite pain and tenderness of the joints, which accompany acute rheumatism. In some hospitals, and by many practitioners, these cases are styled "acute rheumatism;" and there cannot be a doubt that the nature of the disease is the same in the one class of cases as in the other. But those of you who have watched the large number of patients whose symptoms are designated "subacute" in this hospital, must be aware how strictly they deserve the title which is given to them. They are truly "subacute," as compared with those which are styled acute; and the treatment required is in keeping with their subacute character. I will instance the case of M. H——, aged twenty-four, who was admitted into the Queen's ward on the 13th of January, 1862. Three weeks before her admission this woman was attacked with pain and swelling of the ankles, and one week before admission the right knee became swollen and painful, rendering it difficult for her to walk even across the room. When I first saw her the skin was warm and moist—not hot

and perspiring; the ankles and the right knee were swollen, principally from effusion within the capsule, but were not red, and were scarcely tender to the touch; the tongue was only slightly coated; the bowels were acting regularly; the urine was somewhat cloudy; the pulse 96, soft; the catamenia were regular; the appetite was good; the heart's action was regular and its sounds were clear. She told us that the pains were much relieved by warmth; and as guaiacum is a medicine which has always appeared to me to be signally useful in such cases, I determined to administer, every six hours, the guaiacum mixture of the Pharmacopœia, with the addition of half a drachm of carbonate of potash, half a drachm of acetate of potash, and six grains of iodide of potassium. At the same time I limited her diet to fish and beef-tea. By these means I hoped to stimulate the action of the skin, to counteract acidity, to promote the action of the kidneys, and to check the further formation of the materies morbi. The iodide of potassium was given because observation has led me to believe that in subacute and chronic cases in which the articular swelling is referable principally to effusion within the capsule of the joint, this salt assists in promoting absorption of the synovial fluid, and acts beneficially as an alterative. Be this as it may, the result was satisfactory; relief was speedily obtained, and she left the hospital quite well at the end of the week (on the 19th).

In many of these cases the skin is very inactive, and when, as often happens, inactivity appears to be in great measure the cause of the continuance of the rheumatic pains, hot-baths, hot air baths, and vapor baths are essential adjuncts to the treatment. Sometimes the liver is very sluggish, as indicated by the muddiness of the complexion, the yellowness of the conjunctivæ, and the furring of the tongue; and in such instances no permanent relief will be obtained until the diet has been carefully regulated, and the liver stimulated, by repeated doses of some mercurial preparation. An excellent example of this fact has been under your notice in the case of J. B——, aged twenty-one, in Holland ward. This woman was admitted on the 10th of February, 1862, suffering rather severely from articular pain and swelling of ten days' duration. Her skin was warm and dry, not hot and perspiring, and her general symptoms were hardly such as to justify us in classing her case as one of acute rheumatism. Her symptoms were treated in accordance with their subacute character. Her skin was acted on by means of a hot-air bath, and the guaiacum mixture was

ordered to be taken every six hours, with the addition of half a drachm of carbonate of potash, and half a drachm of acetate of potash. At the same time, as her complexion was muddy, the conjunctivæ yellowish, and the tongue exceedingly furred, and as the bowels were sluggish, I deemed it right to administer on alternate nights five grains of calomel and five grains of the compound extract of colocynth, followed in the morning by a senna draught, containing half an ounce of the potassio-tartrate of soda. Moreover her diet was limited to beef-tea. The bowels were freely acted on by the medicine and after each evacuation the pains were relieved, so that in a few days the swellings subsided and she was able to leave her bed. At this time (on the 16th) the complexion was still muddy, and the tongue coated, though less so than before. As she was almost free from pain, and begged for an increased allowance of food, I was induced to give her a small quantity of meat. The result was an immediate return of articular pain and swelling, which I attempted in vain to relieve by alkaline medicines and hot-air baths. No impression could be made on the symptoms until beef-tea had been again prescribed as her diet, and recourse was again had to colocynth and calomel to stimulate the secretory action of the liver and evacuate the acrid contents of the bowels. Relief was then obtained in a few days, and though her tongue had not thoroughly cleaned, and her complexion remained sallow, she was going on steadily to recovery. Some of you, however, having expressed a doubt as to whether her relapse was indeed attributable to my having given her meat and ceased to purge her, whether the recurrence of her symptoms at that particular moment was not a mere coincidence, I determined to satisfy you on this point by again ceasing to administer purgatives, and by ordering her meat for her dinner. The result was an immediate recurrence of pain and articular swelling, and a confirmation of my suspicions on the subject. Similar cases are of frequent occurrence, and are amongst the most obstinate met with in practice, if recourse is not had to repeated—I had almost said the daily—administration of purgatives.

So again, when the constitution is weak and the patient is exhausted, rheumatic medicines—falsely so called—are of little avail for the cure of the disease until the system has been invigorated by tonics. Take as an example the case of E. K., aged twenty-one, who was admitted into the Roseberry ward, on the 18th of last November. She was pale, weakly and out of health when she was attacked, three weeks before her ad-

mission to the hospital, with wandering pains in the limbs and occasional swelling of the joints. On admission there was swelling of both knees and the wrist, but no redness and very little tenderness; the skin was warm and moist, the tongue clean, the bowels were regular, the urine was clear, the pulse 84, soft and weak. The guaiacum mixture was ordered to be taken every six hours, with the addition of a drachm of the ammoniated tincture of guaiacum, a scruple of carbonate of potash, and six grains of iodide of potassium. This treatment with some trifling alteration, was continued until the 3d of December, when, as little or no improvement had taken place, I substituted the cinchona draught for the guaiacum mixture, and continued the other medicines as before. A marked change occurred immediately. Within a few days her aspect became more healthy; by the 8th the swellings had disappeared; and by the 12th there were no longer any pains in the joints. On the 15th she left the hospital. Let me beg of you, then, to the indications which point to the necessity for tonics. Knowing, as I do, from long experience, how frequently their exhibition is necessary, I am nevertheless too apt, as in this case, to overlook the symptoms which call for their administration. Much more will this be so with you, if you do not bear the fact constantly in mind. A clean tongue and clear urine, when met with coincidently with a cool, moist skin, or a clammy perspiration, are symptoms which denote a languid state of the system, and demand the aid of tonics; and although the form of tonic required may vary in different cases, you will rarely succeed in relieving your patient if you fail to impart tone and vigor to his system. You will see this fact constantly illustrated in practice; and now that your attention has been specially directed to it, you alone must bear the blame if you do not recognize the necessity when it occurs, and act on the suggestions I have thrown out.

One word before quitting this subject on the frequency of inflammation of the heart in connection with "acute" and "subacute" rheumatism. The statistics which I collected in the wards of this hospital during the period of my registrarship* show that whereas the heart is damaged to a greater or less extent in 1 out of every 2.06 of the cases designated "acute" in our wards, it suffers only in 1 out of every 6.65 of the cases which are styled "subacute;" and if this latter class were still

* See my work on Rheumatism, Rheumatic Gout, and Sciatica, 3d edition, pp. 260—284.

further extended, and were made to include examples of rheumatic gout, and cases of rheumatism characterized by severe pain, but unaccompanied by articular swelling or febrile disturbance, the proportion of cases in which the heart would become damaged would fall to 1 in 36.25 cases. In a therapeutical point of view, this difference in the liability to heart affection, according as the rheumatism assumes one type or another, is a matter of grave importance, as proving how much more energetic should be our treatment in one case than in another, and how much more watchful we should be for the accession of cardiac mischief. But its practical bearing on the statistics of heart disease is even more important, for you will readily understand how much more favorable any particular mode of treatment may be made to appear, in reference to cardiac complications, if cases of subacute and chronic rheumatism, and cases of rheumatic gout, are included under the head of acute rheumatism, than they would be if the term acute rheumatism was restricted as it is in the wards of St. George's Hospital.

We will now pass on to the consideration of cases of so-called chronic rheumatism. If the term chronic rheumatism were to be limited to cases in which pains in the limbs resulted from the presence of the materies morbi which gives rise to true rheumatism as typefied by rheumatic fever, my conviction is that you would meet with comparatively few examples of this form of disease. Experience shows that the sufferers from rheumatic fever are usually exempt from chronic rheumatism, and that if, as sometimes happens, they do have pains in the limbs, the attack soon subsides under appropriate treatment, or else runs into rheumatic fever. Further, the disease bears the impress of true rheumatism from its very commencement. The patients are pale or sallow, the tongue is coated, the urine shows a tendency to deposit lithates, the pains manifest a strangely migratory character—shifting repeatedly from limb to limb, and alkaliss, combined it may be with tonics, afford almost immediate relief. But, as I told you at the beginning of my lecture, many varieties of disease are comprised under the title of chronic rheumatism; and you will readily understand that if this be so—if cases differing not merely in their general features, but in their mode of origin and essential cause, are classed together under the same title—the treatment which may check the progress of one case may fail to exercise the slightest influence over the course of another. And so in practice it is found to be. It is not that a remedy

is efficacious in some particular form of rheumatism in one person and fails to relieve the same form of rheumatism in another; on the contrary, the medicine which proves remedial in one person will usually eradicate the same form of the complaint in another. So generally does this hold good, that it forms an almost unanswerable argument in favor of a plurality of poisons; and I do not hesitate to state my conviction that many cases of so-called rheumatism have nothing in common with true rheumatism as typefied by rheumatic fever, but arise from the presence of totally different materies morbi, and, consequently, require a totally different treatment.

Let me take a few examples of some of the more common and more obstinate forms of so-called chronic rheumatism. P. D——, aged fourteen, a cachectic boy, who had suffered for some months from cough and general debility, resulting, as it appeared, from insufficient nourishment and general neglect at home, was admitted into the Fuller ward on the 16th of November. His principal complaint was of pains in his limbs and finger-joints, and occasional swelling of the knees. These had troubled him about twelve months, and had latterly become so severe as to cause him to disregard his cough. He had been under medical treatment above two months, but he had not obtained relief. His aspect was cachectic; his skin cold and clammy; the circulation languid, so that his hands and fingers were of a purplish color; the pulse was 90 and weak; the tongue clean; the urine clear; the bowels were reported regular; the appetite was indifferent. Here, then, was a case—an obstinate case of so-called rheumatism—of rheumatism so obstinate that it had resisted all means employed to get rid of it above twelve months! Yet what single symptom of true rheumatism did it present, except pain and occasional swelling of the joints? The tongue was clean, the bowels were regular, the urine was clear, the skin cool; there was no feverishness, no evidence of the presence of that acidity by which true rheumatism is characterized. But as there were pains in the limbs and joints, the malady was called rheumatism, and as rheumatism I doubt not it had been treated, for the boy had not only taken medicines, but had had repeated warm baths. The result I have just told you; he had failed to obtain the slightest relief, and at length was brought to the hospital. No wonder that treatment directed against rheumatism should have failed so signally: for the boy was not suffering from that disease, but from irritation and pain in his joints resulting from a cachectic condition of

his blood altogether distinct from that which exists in rheumatism. Those of you who are familiar with the features of gout, or who have noted the severe aching pains in the limbs by which an attack of typhus fever is ushered in; the intense pain in the loins and oftentimes in the limbs also which accompanies an attack of smallpox, and pains in the limbs, with occasional effusion into the capsules of the joints so commonly met with in cases of glanders, and in the cases of starvation which sometimes seek a refuge in our wards, need not be reminded that other agencies besides the rheumatic poison may excite pains in the limbs and swelling of the joints, and will admit that the only so-called rheumatic symptom from which this boy was suffering, may and often does arise quite independently of any true rheumatic influence. The only indications for treatment in this case—the indications which any one must have seen who could divest himself of preconceived ideas as to rheumatism—were the cachectic condition of the system, the cold clamminess of the skin, the feebleness of the circulation, and the want of appetite. With the view of meeting these difficulties I gave him a five-grain compound rhubarb pill to make sure of a proper emptying of the bowels, and prescribed a draught to be taken three times a day, containing a drachm of the syrup of iodide of iron, an ounce of the infusion of quassia, and half an ounce of cod-liver oil. At the same time I urged him to try to eat meat, and ordered him the ordinary diet of the hospital and a pint of porter. Strange treatment for his rheumatism! Yet it proved eminently successful, whereas the orthodox hot baths and rheumatic remedies had failed. Within a fortnight his aspect had improved, he had gained strength, and the pains were greatly relieved. At the expiration of three weeks, his pains having wholly ceased, and his strength and health becoming daily more satisfactory, he was made an out patient of the hospital. Before he left I directed him to continue his medicine for at least another month, on the ground that in all these cases it is necessary, not only to relieve the pains, but to guard against their recurrence by a lengthened course of tonics.

The case of E. C———, a married woman, aged thirty, whom you will remember in the Queen's ward, is an example of another form of malady which is styled rheumatism; but has nothing, except pain, in common with true rheumatism. She had usually enjoyed good health; but had suckled her youngest child above fourteen months, and had felt weak and languid ever since. Whilst in this state she was attacked

with severe pain, extending from the right knee down to the toes. This pain commenced three months before she applied to the hospital, and although she had been under medical treatment above two months, and had not only taken a large quantity of medicine, but had employed a variety of embrocations, she had failed in obtaining the slightest relief. She described the pain as of a burning character, and as being aggravated in paroxysms at irregular intervals. It was not accompanied by redness or swelling, but during a paroxysm there was decided increase of heat in the part. There had not been pain in other part of the body. When I first saw her she was pale and sallow; the skin was natural; tongue coated; bowels reported regular, and urine clear; the pulse was 84, regular, but weak; the catamenia, were regular but too profuse. Now, without stopping to inquire into the pathology of this form of disease, which, if not recognized as distinct from true rheumatism is usually little amenable to remedies, I would direct your attention to the clinical history of the case under consideration as bearing upon the treatment to be adopted. In the first place, the symptoms, if carefully examined, do not bear the impress of true rheumatism. There was no previous history of rheumatism, and no turbidity of the urine; there was no redness, no swelling, no shifting of the pain from limb to limb, as is almost invariably observed in rheumatism. But there was coating of the tongue, feebleness of the pulse, and distinct paroxysmal increase of pain, and the severity of the pain was far in excess of what the local symptoms appeared to indicate. In short, the pain was evidently of a neuralgic character, and the disposition to it was probably engendered by debility and exhaustion, resulting from her having suckled her child above fourteen months. Such, at least, was my view of the case, and I ordered her accordingly the ordinary diet of the hospital, with a pint of porter, and prescribed the following medicines: Colocynth and calomel pill, ten grains, at bedtime. Tincture of aconite, six minims; bisulphate of quinine, five grains; dilute sulphuric acid, twelve minims; water to an ounce and a half; every six hours. By this means I hoped to get rid of any offending matter which might have accumulated in the bowels, and given rise to the coating of the tongue, and to subdue the exalted sensibility of the nerves with which her suffering was manifestly connected. The result proved that my view was correct; for within four days the pain in the leg was much

relieved, and at the expiration of a week she left the hospital, having thoroughly got rid of the pain, which for three months had not ceased to trouble her.

WHAT EXEMPTS FROM CONSCRIPTION.

1. Manifest imbecility or insanity.

2. Epilepsy. For this disability, the statement of the drafted man is insufficient, and the fact must be established by the duly affidavit of a physician of good standing, who has attended him in a convulsion.

3. Paralysis, general, or of one limb, or chorea—their existence to be adequately determined.

4. Acute or organic disease of the brain or spinal cord; of the heart or lungs; of the stomach or intestines; of the liver or spleen; of the kidneys or bladder—sufficient to have impaired the general health, or so well marked as to leave no reasonable doubt of the man's incapacity for military service.

5. Confirmed consumption; cancer; aneurism of the large arteries.

6. Inveterate and extensive disease of the skin, which will necessarily impair his efficiency as a soldier.

7. Decided feebleness of the constitution, whether naturally or acquired.

8. Scrofula, or constitutional syphilis, which has resisted treatment, and seriously impaired his general health.

9. Habitual and confirmed intemperance, or solitary vice, in a degree sufficient to have materially enfeebled the constitution.

10. Chronic rheumatism, unless manifested by positive change of structure, wasting of the affected limb, or puffiness or distortion of the joints, does not exempt. Impaired motion of the joints, and contraction of the limbs, alleged to arise from rheumatism, and in which the nutrition of the limb is not manifestly impaired, are to be proven by examination, while in a state of anæsthesia, induced by ether only.

11. Pain, whether simulating headache, neuralgia in any of its forms, rheumatism, lumbago, or affections of the muscles, bones, or joints, is a symptom of disease so easily pretended, that it is not to be admitted as a cause for exemption, unless accompanied with manifest derangement of the general health, wasting of a limb, or other positive sign of disqualifying local disease.

12. Great injuries, or diseases of the skull, occasioning im-

pairment of the intellectual faculties, epilepsy, or other manifest nervous or spasmodic symptoms.

13. Total loss of sight; loss of sight of right eye; cataract; loss of crystalline lens of right eye.

14. Other serious diseases of the eye, affecting its integrity and use, e. g., chronic ophthalmia, fistula lachrymalis, ptosis (if real), ectropion, entropion, &c. Myopia, unless very decided, or depending upon some structural changes in the eye, is not cause for exemption.

15. Loss of nose; deformity of nose so great as seriously to obstruct respiration. Ozœna, dependent upon caries in progress.

16. Complete deafness. This disability must not be admitted on the mere statement of the drafted man, but must be proved by the existence of positive disease, or by other satisfactory evidence. Purulent otorrhœa.

17. Caries of the superior and inferior maxillary, of the nasal or palate bones, if in progress; cleft palate (bony); extensive loss of substance of the cheeks, or salivary fistula

18. Dumbness; permanent loss of voice, not to be admitted without clear and satisfactory proof.

19. Total loss of tongue; mutilation or partial loss of tongue, provided the mutilation be extensive enough to interfere with the necessary use of the organ.

20. Hypertrophy or atrophy of the tongue, sufficient in degree to impair speech or deglutition. Obstinate chronic ulceration of the tongue.

21. Stammering, if excessive and confirmed; to be established by satisfactory evidence, under oath.

22. Loss of a sufficient number of teeth, to prevent proper mastication of food, and tearing the cartridge.

23. Incurable deformities, or loss of part of either jaw, hindering biting of the cartridge, or proper mastication, or greatly injuring speech; anchylosis of lower jaw.

24. Tumors of the neck, impeding respiration or deglutition; fistula of the larynx or trachea; torticollis, if of long standing and well marked.

25. Deformity of the chest, sufficient to impede respiration, or to prevent the carrying of arms and military equipments. Caries of the ribs.

26. Deficient amplitude, and power of expansion of chest. A man 5 feet 3 inches (minimum standard height for the Regular Army) should measure not less than thirty inches in circumference, immediately above the nipples, and have an expansive mobility of not less than two inches.

27. Abdomen grossly protuberant; excessive obesity. Hernia, either inguinal or femoral, ventral, umbilical, &c.

28. Artificial anus; stricture of the rectum; prolapsus ani; fistula in ano is not a positive disqualification, but may be so if extensive, or complicated with visceral disease.

29. Old and ulcerated internal hæmorrhoids, if in degree to impair the man's efficiency. External hæmorrhoids are no cause for exemption.

30. Total loss, or nearly total loss of penis; epispadius or hypospadius, at the middle or near the root of the penis.

31. Incurable, permanent, organic stricture of the urethra, in which the urine is passed drop by drop, or complicated by disease of the bladder. Recent or spasmodic stricture of the urethra does not exempt. Urinary fistula.

32. Incontinence of urine being a disease frequently feigned, and of rare occurrence, is not, of itself, a cause for exemption. Stone in the bladder, ascertained by the introduction of the metallic catheter, is a positive disqualification.

33. Loss, or complete atrophy of both testicles, from any cause; permanent retention of one or both testicles within the inguinal canal, but voluntary retraction does not exempt.

34. Confirmed or malignant sarcocele; hydrocele, if complicated with organic diseases of the testicle. Varicocele and circocele are not, in themselves, disqualifying.

35. Excessive anterior and posterior curvature of the spine; caries of the spine.

36. Loss of an arm, fore-arm, hand, thigh, leg, or foot.

37. Wounds, fractures, tumors, atrophy of the limb, or chronic diseases of the joints or bones, that would impede marching, or prevent continuous muscular exertion.

38. Anchylosis, or irreducible dislocation of the shoulder-, elbow-, wrist-, hip-, knee- or ankle-joint.

39. Muscular or cutaneous contractions, from wounds or burns, in degree sufficient to prevent useful motion of a limb.

40. Total loss of a thumb, loss of ungual phalanx of right thumb.

41. Total loss of any two fingers of same hand.

42. Total loss of index finger of right hand.

43. Loss of the first and second phalanges of the fingers of the right hand.

44. Permanent extension and permanent contraction of any finger except the little finger; all the fingers adherent or united.

45. Total loss of either great toe; loss of any three toes on the same foot; all the toes joined together.

46. The great toe crossing the other toes, with great prominence of the articulation of the metatarsal bone, and first phalanx of the great toe.

47. Overriding or superposition of all the toes.

48. Permanent retraction of the last phalanx of one of the toes, so that the free border of the nail bears upon the ground; or flexion at a right angle of the first phalanx of a toe upon a second, with anchylosis of this articulation.

49. Club-feet, splay feet, where the arch is so far effaced that the tuberosity of the scaphoid bone touches the ground, and the line of the station runs along the whole internal border of the foot, with great prominence of the inner ankle; but ordinary large, ill-shaped, or flat feet, do not exempt.

50. Varicose veins of inferior extremities, if large and numerous, having clusters of knots, and accompanied with chronic swellings or ulcerations.

51. Chronic ulcers; extensive, deep and adherent cicatrices of lower extremities.

52. *Stature.* If the height of the drafted man be greater than six feet four inches, or less than five feet three inches, he is disqualified for military service. The height in all doubtful cases to be determined by accurate measurement, the recruit being made to stand erect on his bare feet, and care being taken that he neither increases nor lessens his stature by voluntary effort.

53. No certificate of a physician or surgeon is to be received in support of the claims of drafted men for exemption from military service, unless the facts and statements therein set forth are affirmed or sworn to before a civil magistrate competent to administer oaths.

EDITORIAL AND MISCELLANEOUS.

A Treatise on Hygiene with Special Reference to the Military Service. By WILLIAM A. HAMMOND, M. D., SURGEON GENERAL, U. S. ARMY; Fellow of the College of Physicians of Philadelphia, Member of the Philad. Pathol. Soc.; of the Acad. Nat. Sci.; of the Am. Philosoph. Soc.; Hon. Corresp. Memb. of the Brit. Med. Assoc.; Member of the Verein fur Gemeinschaftliche Arbeiten zur Forderung der Wissenschaftlichen Heilkunde; late Prof. of Anatomy and Physiology in the University of Maryland; late Surgeon and Lecturer on

Clinical Surgery at the Baltimore Infirmary, &c., &c. Philadelphia: J. B. Lippincott & Co., 1863. pp. 604. $5.00.

We welcome this work with peculiar satisfaction. Primarily because it is a timely work—one which the present exigencies of our country demand, secondarily because it is a valuable contribution to general science. The Surgeon General of the United States' army, occupying a position of responsibility inferior to none of which the annals of history afford any record, and involved in duties unparalleled, has found it necessary to undertake a task of the most vast importance. Recognizing the grand principle that the prevention of disease is a work, if possible, more important than its cure, and keenly alive to the fact that sanitary science has thus far been less cultivated than therapeutics, he has in addition to his onerous public duties undertaken a task from which a private, otherwise unoccupied, scholar might well shrink. The proof of this proposition is found in the fact that there is scarcely an attempt at an adequate treatise upon the subject in the English or indeed in any other language. Here and there may be found a tiny manual, or diminutive monograph, but not a single work at all commensurate with the subject.

When we reflect that in addition to his other official duties Surgeon General Hammond has within the last year organized military hospitals, unsurpassed in perfection of details by any in the world, numbering more than *one hundred thousand* beds, and that all along a military line of many thousand miles his wonderful administrative and executive abilities have reached, with a perfection of success which has wrung from his bitterest enemies the (to them, humiliating) confession that "THE MEDICAL AND HOSPITAL ORGANIZATION OF THE SERVICE IS MOST THOROUGH AND COMPLETE"—we may well marvel at the zeal, professional *esprit de corps*, and better than all, high-toned, self-sacrificing patriotism which could attempt an arduous labor like that which has culminated in the work now before us.

Since writing the article of last month, defending General

Hammond from the violent, malignant and unprofessional attacks made upon him in certain quarters, in consequence of his famous "Order No. 6," we have taken occasion to review his connection with the medical department of the army as its official head. We have carefully read every order or circular from the department since he was placed in command, and made ourselves familiar, so far as possible, with the practical workings, and we do not hesitate in publishing this our conviction, that more than Baron Larrey was to the first Napoleon, what Washington was to the Revolution, and what Grant thus far appears to the army of the Mississippi, has been Hammond to the medical staff of the grand army of the United States.

Need we undertake to express the unmitigated disgust, abhorrence and contempt, we feel for the *animus* which carried through the following resolution in a medical society not far from Ohio?

"*Resolved*, 5th, That Drs. Jno. A. Murphy, G. C. E. Weber, and A. Metz be a committee instructed to report to the American Medical Association that this Society demands the speedy trial and expulsion of Dr. Wm. A. Hammond, for the gross injustice done the profession by his foolish and quackish order No. 6."

We here put down the prophesy that there is not an individual who voted for that resolution, but that in a twelvemonth (if not already) will be ashamed of it, and in five years will deny that he ever voted for it, or was even present at the meeting upon whose records it has become "damned to everlasting fame."—The book before us is sufficient answer to all such narrow-minded, illiberal twaddle. In the words of a dignified and learned contemporary, the veteran *Boston Medical Journal*:

"No better proof of the fitness of the present Surgeon General of the United States for the high and responsible office which he fills could be asked than the volume before us. It will take its place at once among the standard works on the subject. Any one conversant with the philosophical and inquiring mind of the author will readily understand that he is to be found among the most influential class of the profession

at the present day, who are disposed to question pretty closely the claims of drugs to virtues which too often prove to be merely traditional, while they are ever on the alert to detect those causes which produce and perpetuate disease, and depend more upon an accurate knowledge of the laws of nature in treating it than upon any specific medication. His recent exclusion of the two powerful agents, calomel and tartarized antimony, from the medical supply table of the United States' army, at once shows his confidence in the power of such methods of treatment, and his indifference to the criticisms of the routinists."

Yet Dr. Hammond is not indifferent or sceptical as to the efficiency of proper medication in the treatment of disease, he only urges that "the curative influences of hygienic measures have been too much neglected, and that drugs, the traditional actions of which have been positively disproved by physiological and chemical researches, as well as by the soundest deductions from pathology, are too frequently administered through a strict adherence to the routine which hinders the development of medical science, and cramps the powers of those who labor for its advancement."

The object of the book is to elucidate the principal facts which bear upon the hygienic conditions of man in causing, preventing and curing disease. He urges that, in the military service especially, the very salvation of an army often depends upon the knowledge and application of hygienic principles by those who have the medical superintendence.

It is not pretended that the volume is complete—the circumstances of its publication rendered that impossible—that which has been written is of the imperative practical sort, and he who understands it will not fail to carry his own reflections once thrown in the right direction to other points of great importance. The author defers to a second edition a more complete fulfillment of his allotted task.

Our readers are aware that under the sagacious and comprehensive direction of the Surgeon General an immense amount of material is being collected in the Army Medical Museum, and in the bureaus of the department—an amount

unprecedented in the annals of military medicine and surgery, and more even than is contained in the published medical records of all the armies of the world,—and that, by-and-by, this immense accumulation of matter is to be systematized, and thus form a body of scientific medical and surgical truth the like of which the world has never known.

We cannot forbear to quote the concluding passages of Dr. Hammond's preface:

"It is only by yielding our opinions to the age in which we live, when every science bearing upon medicine is being developed by the labors of thousands of investigators, that we can claim the right to be regarded as wise physicians seeking only the good of those committed to our charge, rather than our own personal advantage. In science we believe nothing until it is proven, and even then we should be ready to forsake our most cherished doctrines when the evidence of their instability is forthcoming. If, therefore, I have been positive in the expression of opinions which are at variance with those held by others, it is only because I *now* believe them to be correct. To morrow I may renounce them all.

"But even in my positiveness, I hope I have not forgotten the proprieties of life, or the forbearance and courtesy which should prevail in all discussions, especially those of a scientific character."

Which gentlemanly as well as scholarly ideas we commend to the Ohio committee on Expulsion.

But *revenons à nos moutons*———

The book is divided into three sections. The first section, of two chapters, discusses the general and special qualifications and disqualifications of recruits. The second section, in ten chapters, discusses the agents inherent in the organism which affect the Hygienic condition of man, i.e. Race, General and Particular Temperaments, Idiosyncrasy, Age, Sex, Hereditary Tendency, Habit, Morbid Habits, Constitution.

The third section, of twenty-nine chapters, treats of Agents External to the Organism which act upon the Health of Man, under which are noticed the Atmosphere with its essential and accidental constituents, Temperature, Light, Electricity, Water, Soil, Locality, Climate, Acclimation, Habitations, Hospi-

tals, Principles of Hospital Construction, Field Hospitals, Lighting of Hospitals, Heating of do., Ventilation of do., Barracks, Camps, Food, Alimentary Principles, Physiological and Sanitary Relations of Food, Animal Compound Aliments, Vegetable do., Accessory Food, Alimentation of the Soldier, Clothing, Hygienic Relations of Clothing with the several parts of the Body. *Index.*

We have not space or time for an elaborate review of the author's views and statements upon these important topics. They should be thoroughly and carefully studied and digested —and the student or practitioner will not fail to arise from the perusal with more enlarged and comprehensive ideas of the physician's true sphere, and at the same time, with far more clear and practical notions as to his every day, and every hour, duties.

We chronicle this book, emanating from the source which it does, as a distinct milestone of medical progress. Well may its author laugh to scorn the puny attempts of his detractors, whether single or associated.

True Function of the Round Ligament of the Hip Joint. —John Struthers, M. D., &c., Lecturer on Anatomy in the Edinburgh School of Medicine, in the London *Lancet* demonstrates the true function of the round ligament of the hip joint. He observes in concluding his article:

"Whatever may be the explanation of the direction of the different dislocations, it is evident that the natural tendency is for the bone to throw itself out of the socket forwards. Now to prevent this, there are two strong ligaments. In the extended position, as in standing with the toes turned more or less out, it is checked by the whole front of the capsular ligament, including the entire ilio-femoral band. But by flexion the front of the capsule is relaxed, allowing the outward rotation to go farther, until it is checked by the round ligament, and by the outer part of the ilio-femoral band. The limb in this position when it is lifted and advanced in walking, or in stepping up with the toes everted, in sitting with the knees apart, or with one leg laid across the other knee, or in the

tailor posture, or on horseback. In all these and similar positions the hip joint is flexed and rotated outwards, and the ligament is called into play to prevent the ball starting forward from the socket."

Radical Cure of Hernia.—Mr. Wood's operation is commended in the same journal as among the best in vogue. It is comparatively simple, and certainly in point of danger is an absolute contrast to the formidable operation involving the considerable external incision practiced in cases of large herniæ. The operation in one clinical case is reported as follows. The patient being under chloroform: "The finger being introduced in the external ring, and as far as possible beneath the edge of the conjoined tendon, one of Mr. Wood's needles, made for the purpose, was introduced through the skin over the point of the finger, pushed through the conjoined tendon, being then guided by the finger through the internal pillar of the external ring before it pierced the skin of the scrotum. Another needle, then introduced through this lower puncture and external ring, was pushed through Poupart's ligament, and out at the upper puncture by the side of the first needle. The needles, having a sort of eye twisted in them, were thus able to be locked firmly together, so as to draw the walls of the inguinal canal and the pillars of the ring together. The needles were fastened down with plaster and a pad and bandage. Needles removed in 14 days. The cure was complete."

Fractured Thigh.—T. Wilkins, M. D., late of the U. S. A., now of Greenville, Bond Co., Ill., writes us that in cases of fractured thigh, where more elaborate apparatus is not at hand, he has found the following very convenient: A stout frame, a little longer than the patient, and three feet in width. Strong canvass is securely fastened to this. A round hole is cut in the cloth at the region of the nates, and bound around the edge. The patient is laid upon this canvass, and then the whole upon the bed. He is allowed to remain upon it all the time, except when the bowels are to move, when the frame

can be lifted off from the bed and supported upon chairs or stools, the receiving vessel being placed under the opening. The duty being performed, all can readily be replaced upon the bed, with not the slightest danger of displacing the fractured bones.

Prof. Bedford's Diseases of Women and Children—Erratum.—In accordance with the frequently expressed wish of subscribers, we undertook last month to append to some of our book notices the respective prices, Not being furnished with that of the one at the head of this notice we copied from the Cincinnati *Lancet* the price as $2.00. This it appears was a typographical error, as a moment's reflection would have shown us. A book of that size could never be furnished at that price, in war times at least. As we stand corrected by a note from the publishers, Wm. Wood & Co., New York City, the price is $3.50.

Obituary.—Charles Hartman, M. D., of Cleveland, Ohio, well known as former Collaborator of the Cincinnati *Lancet & Observer*, fell upon the battle field of Chancellorville, May 3d. He was, we believe, at the time, a surgeon of volunteers. His death will be much regretted as that of an educated, accomplished and high-minded physician.

Samuel A. Cartwright, M. D., near Jackson, Miss., Æ.72. Well known for his peculiar treatment of Asiatic Cholera, his papers on the Sugar House Cure of Consumption, Experiments on the Aligator, &c., &c. Dr. Cartwright was long a resident of Natchez, and afterwards removed to New Orleans, whence he communicated to the Northern medical press copiously. We are not informed whether he was connected with the medical staff of the Confederate army, but presume, from his advanced age and kindly feelings, in past time, toward the North, that he was not. His death will be generally regretted, both North and South, as a genuine medical gentleman and scholar of the old school.

Sea Sickness.—℞. Hydrochlor. Acid. Dilut., ʒij; Acid Nitric Dilut., ʒj; Acid Hydrocyan., gtt. xvj; Aquæ, ℥viij; M. S. Two tablespoonfuls every three or four hours.—*Drug. Circ.*

"*Ludlam's Specific.*"—℞. Ext. Krameriæ, ℥ij; Pulv. Aluminis, ʒj; P. Cubeb., ℥j; Bal. Copaib., ℥ij; Magnes. Carb. q. s. M. f. massa.—*Id.*

Camphor Ice.—℞. Ol. Amygd. Expr., Aq. Rosæ, *aa* lb., j; Ceræ Albæ, Spermaceti, *aa* ℥j; Camphoræ, ℥ij; Ol. Rosmarinæ, ʒj; M. S. Artem.—*Id.*

Vinum Anti-Leucorrhoicum. (Hager.)—℞. Cort. Cinchonæ, 6 parts; Tinct. Cinnamomi, 2 parts; Rad. Ratantiæ, 20 parts; Catechu, 5; Sacchari, 100; Vini Rhenani, 10,000; Alcohol, dilut., 100. Macerate together, express and filter. S. Twice daily a wineglassful.—*Id.*

Formula for Use of Bromine. (Prof. J. L. Smith.)—℞. Bromine, 1 troy ounce; Bromide of Potassium, 160 grs.; distilled water, q. s., to make four fluid ounces of the whole mixture. Dissolve the Bromide of Potassium in about two fluid ounces of the water in an eight ounce bottle, then add the Bromine, agitate gently until the solution is complete, then add water enough to bring the whole to four fluid ounces. This mixture forms a very dark red solution, evolving strong fumes of Bromine, and readily soluble in any additional quantity of water.—*Am. Jour. Med. Sci.*

Glycerole of Iodine.—℞. Glycerinæ, 2 parts; Potassii Iodid., 1 part; Iodinii, 1 part. M. f. sol.—*Drug. Circ.*

Death from Inhalation of Nitric Acid Vapor.—Two cases of death are reported in Edinburgh from accidentally inhaling largely the fumes of Nitric Acid. In one case the first symptoms of poisonous effect came on in an hour, with death at ten hours after. In the other not until three hours after the inhalation, and death in about thirty-six hours.

Fatality of Cholera in Malabar.—The mortality among such of the natives as were treated in hospital on the outbreak of cholera in 1859–60 was 66 per cent.; that of cases registered throughout the district no less than 93 per cent.—*London Lancet.*

Oxygen Gas.—At the last sitting of the Academy of Sciences of Munich, Baron Liebig made a very interesting communication relative to some experiments made with a new apparatus—manufactured chiefly at the expense of the King of Bavaria—for detecting the existence and measuring the quantity of oxygen in various bodies. The experiments, Baron Liebig stated, had proved clearly that oxygen is not only evolved from the atmosphere by plants, but also in tolerably large quantities by decomposition of water in the body of flesh-eating animals. Baron Liebig thinks that the knowledge of this fact will throw quite a new light on the hitherto but imperfectly understood processes of nutrition and digestion.—*Id.*

Perjury by a Surgeon.—At the assizes at Liverpool, on the 28th ult., Evan Thomas, a surgeon, of Manchester, was tried for perjury. The offence had been committed in a deposition made before the Manchester City Coroner, at an inquest held on the body of a widow named Bell. Mrs. Bell had come from Cockermouth, and was met by the prisoner at the railway station at Manchester. He conducted her to the Cathedral Hotel, and spent a few minutes with her there. She was then very well. Next morning she was very unwell, and Thomas visited her. When he entered the room he locked the door, and shortly afterwards came out saying that Mrs. Bell was dead. At the inquest on the body he swore that he had not known her before, that she had a tumor in the womb, and that death had been caused by epilepsy. Her friends at Cockermouth subsequently caused an inquiry to be made, when it came out that Thomas had known and written to the deceased some months previously. Another post-mortem examination was held, when it was discovered that there was no tumor in the womb, that the disease was pregnant, and that, although the appearances were not inconsistent with death from epilepsy, the prisoner had never examined the brain to ascertain if there were epileptic symptoms. The statement made by him previously was thus shown to be false, and he was indicted for perjury. He was found guilty, and sentenced to three months' imprisonment, the judge expressing his opinion that the prisoner had carried on an illicit amour with the deceased.—*Id.*

Was not this an attempt to procure abortion by some injecting apparatus, whereby air gained admission to the uterine

sinuses? This would readily explain the coincidence, unfortunately getting quite too common, of sudden death "shortly after" the suspected person entering the room of the unhappy victim.

A New Work on Practice.—It is rumored, and a little bird has whispered it to us from the air, that Prof. Austin Flint—whom not to know is to argue one's self unknown, and not to respect shows one incapable of appreciating great personal, literary and professional worth—is preparing for the press a new work on the Practice of Medicine. Such a work is the great want of the time, and we most fervently trust the rumor is well-founded. We scarcely know, on the Continent, one to whom such a task could be as fitly entrusted. Long familiarity with medical students, as a teacher, will enable him to write those things which students need to know; large, varied and most successful practical experience, together with most magnificent capabilities as a diagnostician, will render what he says authoritative with practitioners; whilst literary and professional success in authorship, already achieved by his classical treatise on Diseases of the Heart and other writings, guarantee that the book when written will immediately take the first rank as the standard text-book, wherever the English language is read.

We have no means of knowing when the publication is to take place, and can only say that every day it is delayed is a misfortune to the profession.

Conservative Medicine is now a fixed fact, and the invalided grumblers, the fossils, and stand-stills, must fall into the rear of the grand army, with the baggage-wagons and the wounded. A great progressive science, now developing with most marvellous rapidity, must not be repressed and tied down by exploded ideas and the rotten ropes of effete dogmatism.

Looking across the Atlantic, the scattered waifs which have floated to us bearing the impress of Thomas K. Chambers,

lead us to hope that before long the profession may have from his pen also, a systematic treatise, which we know they "will not willingly let die."

Editorial Change.—We regret to notice that Dr. R. J. Levis has retired from his connection with the *Philadelphia Reporter*, having entered the army as a Surgeon of Volunteers.

Dr. O. C. Gibbs had sometime previously discontinued his communications to the same journal, but from what cause we are not informed. These withdrawals are to be the more regretted as they have notably impaired the tone of the editorial columns of that medical weekly. Several of the recent numbers of our beloved Philadelphia contemporary disclose an editorial biliousness which would seem to indicate still further purging.

Briefly—Dear *Reporter*—do you not think that several of the loose evacuations of insinuation and imputation into which you have recently relaxed, would have been ameliorated by the simple remembrance, not of the conventional courtesies of journalism, but of what was due to yourself as a member of a, supposed, gentlemanly profession?

ILLINOIS STATE MEDICAL SOCIETY.

The Special Committee on *Diseases of the Eye*, appointed at the last meeting of this Society, earnestly request all members of the association and of the profession generally, to aid in accomplishing the object for which the Committee was appointed.

Although the Committee has previously reported upon the causes of Conjunctival Inflammations as they prevail at the West, it is desirable to collect more facts in reference to the causes and prevention of this disease.

The Committee would suggest that all members, who have observed the progress of *Epidemic Conjunctivitis*, contribute such facts as may demonstrate to what extent the disease is influenced by dryness of the atmosphere, season of the year, dust from trees and plants, want of care as regards food and exposure, malaria, etc.

The history of interesting cases of any form of Ophthalmic disease is urgently solicited.

It is important that all communications be forwarded to the address of the subscriber previous to April 1, 1864.

E. L. HOLMES, M. D.,
Special Committee on Diseases of the Eye.

Box 2175.

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SELECTED.

PRACTICAL OBSERVATIONS ON THE INJURIOUS EFFECTS OF CHLOROFORM INHALATION DURING LABOR.

By ROBERT JOHNS, A. B., M. D., T. C. D.,

Chairman of the Midwifery Court, and Examiner in Diseases of Women and Children, Royal College of Surgeons in Ireland, &c.

As, at the present time, the subject of chloroform inhalation is again *sub judice*, I feel it incumbent upon me to raise my voice against its employment in midwifery, and to lay before my professional brethren my reasons for the adoption of such a course, which I sincerely trust shall have some weight with the unprejudiced, and which may, perchance, call the more serious attention of some, if not of all, of those now too deeply wedded to its use, to the dangerous, and too often fatal, results consequent thereon, in which, if I but even partially succeed, I shall consider myself well repaid.

From experience, repeated observation, and the published, as also the otherwise expressed opinions of those who agree, as well as those who disagree with me upon the subject, I am firmly convinced that chloroform, when inhaled during labor, very fruitfully disposes to hæmorrhage, puerperal inflammation, chest affections, and to other diseases detrimental to health and life, which it aggravates if given during their presence. It also lays the foundation of diseases to arise at a more dis-

tant period, and thus increases the mortality in childbed and subsequent thereto. I have known puerperal inflammation frequently to have followed its inhalation, and too often with a fatal result; in fact, some years since, when it was more fashionable, and was given with a more lavish hand, a great mortality obtained amongst the patients of some few men who administered it—so much so that a popular outcry was raised against its employment. In the majority of those cases puerperal fever was the cause of death, which, when thus raised, being, as I firmly believe, always infectious or otherwise communicable, became epidemicised, after which even those who wisely refused the drug, "charmed it never so sweetly," were thus inadvertently, and, in some instances, hopelessly poisoned.

In support of these positions, I shall first refer to the several published Reports of the Dublin Lying in Hospital. We find, on reference thereto, during the masterships of Drs. Collins and Johnson,* when chloroform was not inhaled, that the mortality was much less than during that of Dr. Shekleton,† when this "pernicious drug was used"—as thus:—In the first report are recorded 16,414 deliveries and 164 deaths, or 1 in 100; in the second, 6,634 deliveries and 65 deaths, or 1 in 102; whereas in the third, 13,748 deliveries are given, and 163 deaths or 1 in 84!! But of these last 13,406 cases were not chloroformed, of which only 133 died, or 1 in 100, and of the remaining 342 who took the drug, 30 died, or 1 in 11!!! If, again, we examine the reported cases of chloroform administration by Simpson and Denham, we shall find that of 245 cases mentioned by the former, 5 died, or 1 in 49; and of 56 by the latter, 5 died, or 1 in 11!! And, by adding all these recorded cases together, we have a mortality on the whole of 1 in 16!!! By again consulting those reports, we perceive that in Dr. Collins' mastership there occurred 97 cases of post partum inflammation, or 1 in 169; in Dr. Johnson's, 62 cases or 1 in 107; but in Dr. Shekleton's, 150 cases, or 1 in 91. Of those 150 cases 20 followed upon chloroform inhalation, or 1 in 17!! and in the remaining 130 cases, in which it was not employed, the average mortality was only 1 in 103. In Denham's report we find 4 cases, or 1 in 14; which, with all the recorded cases, strikes an average of 1 in 16½!!!

We also find that, during Dr. Collins' mastership, puerperal convulsions proved fatal in the proportion of 1 in 6; whereas in that of Dr. Shekleton, when under chloroform, it amounted to 1 in 3!! and in Denham's cases to 2 in 3!!! or, on the whole, to 1 in 2½!!!

*By Drs. Hardy and M'Clintock. †By Drs. Sinclair and Johnston.

It appears that, during Dr. Shekleton's tenure of office, post partum hæmorrhage occurred but once in every 257 cases when chloroform was not used; yet after its inhalation this complication was present in 1 of every 49 cases. In Dr. Denham's report it was present in 1 of every 19 cases; making, on the whole, an average occurrence of 1 in every 39¾ cases.

With respect to the mortality after perforation, the report of Drs. Hardy and M'Clintock shows 1 fatal case in every 6, and that of Drs. Sinclair and Johnston 1 in every 5; but if we go a little below the surface in the latter report, and examine into 99 cases of perforation, all of equal severity and danger, we shall discover that of the 29 cases in which chloroform was inhaled 9 died, or 1 in 3¼; puerperal inflammation occurred 10 times, or 1 in every 3 cases; and hæmorrhage followed in 3 cases, or 1 in every 10; whereas, of the 70 cases in which this drug was not employed, only 6 women died, or 1 in every 12; puerperal inflammation arose only in 3 cases, or 1 in every 23; and in no case did hæmorrhage occur.

Many have testified to the fact that uterine action has been lessened, and even caused to cease, by anæsthetics; as also that their effect on some is not commensurate with the quantity of the drug employed—as thus: a very large amount not having any effect on some, whereas the inhalation of a very small dose, even of a few drops, has produced almost deep coma in others. Dr. Denham says:—"In some, if left to nature, the labor would probably have been completed in a somewhat shorter space of time. The advantages to be gained by chloroform in some cases will not be found an adequate compensation for the loss of power sustained in the muscles of animal or organic life; and, were we to continue its use, I do believe that the patients would remain undelivered for hours, or even days. The cases that apparently require it most—tedious and difficult labors—are those where it often appears to be injurious, by weakening the pains or relaxing the muscles of animal life." Rigby says:—"We meet with cases, every now and then, where chloroform undoubtedly retards labor, and in some cases likely to call for the use of the forceps."

Dr. Robert Lee mentions cases in which "uterine contractions were arrested, requiring the use of the forceps and perforator."

Tyler Smith "has seen chloroform stop labor midway."

In some of the cases recorded by Sinclair and Johnston uterine action was impaired.

My friend, Dr. Young, of Monaghan, says, in a letter to me:

"I believe chloroform in many instances to delay the labor, by causing the pains to come at longer intervals, and rendering the expulsive efforts of the patient less efficient, owing to her insensibility to suffering."

Merriman has mentioned a case in which "the uterus was so paralyzed that it failed to act afterwards."

Snow says:—"It is true that a full dose would, at any time suspend uterine action for a few minutes, or as long as it might be kept up."

Ferguson says:—"Chloroform does not destroy muscular action, because, when under its influence, some expel urine and fæces." Now, from this, his doctrine must be that it increases muscular action; whereas, I take it that it paralyzes the sphincters.

On looking into Drs. Sinclair and Johnston's report, we find "two cases in which version was very difficult; and two others, in which that operation was impossible, where chloroform had been inhaled."

Murphy thus speaks:—"In a case of version, I never experienced so much difficulty in consequence of the strong contractions of the uterine fibres about the child."

Barnes remarks:—"In many cases it does not facilitate the operation of version, the uterus resisting the introduction of the hand."

Puerperal, hysterical and epileptic convulsions—mania, paralysis and insanity have followed on its use. Cases are recorded by Montgomery, Sinclair and Denham, in which puerperal convulsions occurred after its employment. Sinclair gives two cases of hysterical convulsions, in one of which "violent muscular action was induced; restlessness continued for a considerable time after the inhaler was removed."

Murphy states that, in "dentistry, hysterical women have been seized with fits when under its influence."

Snow asserts that "hysterical patients, as soon as they lose their consciousness from the effects of the vapor, are sometimes attacked with a paroxysm of hysteria."

Dr. R. Lee says:—"Epilepsy has been so induced."

Sinclair records one case of epilepsy.

Snow and M. Fix have stated "that persons subject to epilepsy are likely to have a fit brought on by inhaling chloroform."

Ramsbotham "saw three cases of puerperal mania so caused. A friend of his also saw one similar case."

Sutherland "met three other cases similarly produced."

Tyler Smith stated "that he had seen mania from its use."

Parks relates the case of a lady who had chloroform in her third labor. "She, after delivery, complained of violent pain in the head, became delirious, tore the nurse's gown and the bedclothes into pieces, and was perfectly maniacal."

Mr. Banner thus speaks:—"A patient became delirious, and continued so during the day and greater part of the night, after its use."

Haartman "saw a case of headache terminating in paralysis, caused by this drug."

In one of Dubois' published cases, numbness of the fingers, and in another the same condition of the legs, supervened, and had not subsided at the end of twenty-four hours.

In Denham's report I find one case of coma after chloroformic inhalation.

Dr. R. Lee says "that insanity has followed on its employment; that dangerous and fatal peritonitis and phlebitis have been caused by its inhalation."

Two or three of Denham's cases were seized with rigors; and Lee mentions "others with dangerous fits of syncope;" and in this he is borne out by the following, which I find recorded among Denham's cases:—"While inhaling, the pulse became very weak, and she gave no signs of consciousness; and, immediately on the birth of the child, the respiration of the patient ceased, and the pulse became imperceptible; the application of cold water to the face soon revived her, and she went on favorably for several days; but diarrhœa, with extensive inflammation of the mucous membrane of the ileum, set in, and she died on the fourteenth day."

Sinclair and Johnston record nearly a similar case, as thus: "The pulse suddenly became imperceptible, and respiration appeared to have ceased. She subsequently died of phlebitis." And they give another in which collapse occurred, and she died with symptoms of phlebitis.

Tyler Smith says "that he knew two ladies in whom a few drops of chloroform, at any time, would produce repeated fainting."

I am acquainted with a lady who, some time since, had a very severe attack of syncope from taking only five drops of chloroform in a draught.

Dr. Barnes stated—"That he had himself given chloroform to facilitate the extraction of an adherent placenta, and had witnessed such exceeding prostration for eight hours afterwards, as to make him, and another practitioner who assisted him, apprehensive of the instant death of the patient."

Many are of opinion that the inhalation of chloroform predisposes to laceration of the perinæum; indeed, some of the published cases would tend to favor this idea. In Sinclair and Johnston's report, we find that, in the recorded cases, it occurred once in 27 cases; and when not employed, the accident happened only once in 93 cases. In the same work we find 3 cases of chest affection aggravated by this means, two of which succumbed. Dr. Ringland, one of the Masters of the Coombe Eying-in Hospital, in reply to a letter from me, thus writes:—

"I have seen chloroform frequently used in puerperal convulsions, and have used it myself in connection with the practice of the Coombe Lying-in Hospital; and the conclusion I have come to is, that I will never again use it, or sanction its use, in puerperal convulsions. I have observed that, however satisfactory its employment may appear at the time, it has been almost invariably followed by bronchitis, within 48 hours, and that the patients have sunk rapidly under the latter affection. I have seen this so frequently that I cannot but look on chloroform and bronchitis, under the circumstances I have named, as cause and effect; and the mortality from the subsequent bronchitis, as the actual result of the employment of chloroform.

Ramsbotham relates the case of "a lady who was seized with dyspnœa, with excessive lividity of the face, and all the signs of engorgement of the lungs and heart, and died in convulsions six hours after."

Murphy has published a case nearly similar; he also admits "that vomiting, nausea and headache sometimes follow on its use." Nausea and vomiting were also present in some of Denham's cases.

Rigby states, "that intense headache, and even vomiting are consequences of its use."

I occasionally use a blistering fluid which contains chloroform, and if I am not very cautious during the *minute* I am employing it, I am certain to suffer from sick headache for the remainder of the day. Not long since, severe vomiting followed upon the inhalation of chloroform, during the operation for vesico-vaginal fistula, in one of our city hospitals; and, in spite of all remedies, lasted for six days. It is needless to say that the operation, in consequence thereof, failed. I have so often seen this effect of the drug that I always object to its use in operations requiring the employment of sutures upon the female genitals. Thus, it is evident that such a complication existing after labor would, like severe cough, predispose our

patient to inflammation in parts, for whose restoration to health absolute rest is required.

Parks gives the case of a "lady in whom, after chloroform inhalation, flooding came on to a fearful extent, and incessant sickness. He managed to extract the placenta; and, owing to the feeble contractions of the uterus (and this latter condition, he is confident, it often produces), he was kept grasping it for four or five hours; the vomiting continued for eight hours without intermission; the headache remained for weeks."

Tyler Smith "believed that post partum hæmorrhage and retention of the placenta occurred more frequently after its use than without it."

Montgomery was of opinion "that it predisposes to retained placenta and hæmorrhage."

My friend, Dr. Young, before alluded to, says:—"I have blamed it for causing a longer detention of the placenta, and for occasional after-hæmorrhage, owing to the lazy and inefficient contraction of the uterus. After its use opiates have very little effect; even very decided doses, in any form, have not been followed by that tranquility I had hoped for, in that violent pain which I have so often found to follow operation when chloroform had been used."

Murphy speaks of making pressure on the uterus to expel the placenta, in two cases, after chloroform.

Denham had one case of retained placenta after its employment. He says:—"We had no reason to think that chloroform predisposed to hæmorrhage; on the contrary, we were impressed with the idea that the number of hæmorrhagic cases where it had been given were rather below than above the average in ordinary practice." This statement does not accord with my experience, and I should be sorry to think that hæmorrhage so frequently complicated labor, "in ordinary practice," as once every *nineteen cases*, as shown by his report. Some of the loudest advocates for chloroform inhalation in labor have, in order to counteract its deleterious effects upon uterine action, recommended the co-administration of ergot of rye; which practice reminds me of the astute physician who, to be sure to hit his patient's disease, prescribed for him the combination of a stimulant with a sedative, and a purgative with a tonic. But I hold that there is a more serious objection than this to the wholesale use of ergot; for we cannot conceal from ourselves the fact that its administration, even in appropriate cases, is not always innocuous. Some years since the following case came under my knowledge:—Ergot was given to an

unmarried lady to facilitate the birth of her first child, before her father, who was ignorant of her condition, had returned home to his dinner. The child was rapidly expelled, but sloughing, to a frightful amount, followed, and placed her life in jeopardy for days. And who has not seen the child sacrificed by it? For this reason, it has now-a-days become almost an axiom not to leave a female undelivered for a longer period than two hours after its employment. I believe that ergot of rye, in some cases, causes incarceration of the placenta and hæmorrhage, and in others, sinks the patient; the uterus, after its use, often remains large and uncontracted for days, which state not unfrequently terminates in imperfect involution of the uterus and its consequences; which last effect chloroform also produces. Many believe that ergot, besides destroying the child at the time of its birth, acts sometimes otherwise deleteriously upon it, by inducing disease—to do so at a shorter or longer subsequent period—or to reduce it to a state to which death would be preferable.

Dr. Catlet, in the 57th volume of the *Edinburgh Medical Journal*, page 83, states that ergot of rye, when given during labor, causes puerperal convulsions, hour-glass contraction of the uterus, and infantile hydrocephalus. Amongst the cases of the last, I find one in which "symptoms of meningeal inflammation were developed on the 19th day, and the child died in convulsions, with coma, on the second day following." And in another, "the symptoms of cerebral derangement set in suddenly on the 21st day, and the child died on the third day of the attack, in convulsions."

Dr. Beatty, in a paper "On the Influence of Ergot of Rye on the Fœtus in Utero," published in the 25th volume of the *Dublin Medical Journal*, page 201, amongst other cases after its use in labor, gives the following:—"Case 7. The child had convulsions for three days after its birth." "Case 9. The child had convulsions for 48 hours after birth. They then subsided but left the child in a state resembling paralysis, with occasionally a convulsive motion of the muscles of the face and limbs, and fixed strabismus. No treatment seemed to have any effect upon this condition. Twenty days after its birth the following report was taken:—'This child has remained in a state of insensibility up to the present time; the strabismus has lately disappeared, but it seldom opens its eyes. The limbs are apparently powerless. It makes no effort to suck, but it swallows breast-milk with difficulty when put into its mouth. The difficulty is increasing; the bowels act naturally.' In this

state the child lingered on until the 25th day, when it died." Case 12. This child he first saw when three years old; "it then had an idiotic countenance, and was never free from spasms and palsy, commencing from its birth."

Cusack and others have also testified to the deleterious effects of this drug upon the cerebro-spinal system of the infant.

Dr. Snow says that "chloroform is a volatile spirit, and that half an hour after its application no traces of it could be found in the system."

Now, in refutation of this assertion, Dr. Ramsbotham mentions the case of "a lady who, for four or five days after its use, could not get rid of the smell."

Dr. Aveling speaks of "a lady who had chloroform in three labors, all of whose children, when unwell, had for years afterwards the smell distinctly off their breaths. This lady would never take it again."

In a monograph by me, on "Blistering the Os and Cervix Uteri," published in the May number of the *Dublin Quarterly Journal*, of the year 1857, cases are mentioned of females having had the smell of chloroform off their breaths, evident to their friends as well as to themselves, and of others having experienced its taste, lasting in both instances, for days after the blistering fluid containing that drug had been employed.

When sulphuric ether was first employed as an anæsthetic in this country, a medical student inhaled it as an experiment in this city, and the smell of it was evident off his breath, to any one who spoke with him, for nearly a week after its employment.

Dr. Jackson (an American) thus writes upon the subject:— "When chloroform is inhaled into the lungs, the oxygen is abstracted from the blood, and, combining with the formyle, makes formic acid, while the chlorine combines with the blood as a substitute for oxygen. Thus a portion of the blood becomes chemically changed, disorganized, and rendered unfit for its vital functions. I have now a phial of blood, taken from a young lady killed by the inhalation of pure chloroform, before me, it having been kept in my office, exposed to temperatures from the freezing point to above 80°, for more than six years, and yet it has not decomposed, nor has a single blood-globule settled to the bottom of the phial, nor has the color changed in the least." It has been denied that females, when under the influence of chloroform, make use of improper and indecent language. Now, I never shall forget the case of a lady I saw, in consultation, a couple of years ago, with an

hospital surgeon, who, when chloroformed, threw her arms around him in the most endearing manner, and made use of language which would make her blush if in her senses, of which, I hope sincerely, she was never made cognizant.

Denham says :—"There are cases in which chloroform appeared to be not only useless, but, when persevered in, positively injurious." And again :—"In giving chloroform we incur a certain amount of present danger, and perchance of remote ill effects."

Dr. Robert Lee, in reply to a letter from me, says :—"I could give you a great number of cases in which chloroform was not only injurious, but fatal."

Dr. Gream said :—"He agreed with Dr. Lee in saying that we were quite unacquainted with *one-tenth* of the evil effects which had resulted from the use of chloroform, particularly in Scotland."

Dr. Duncan, in a letter to Dr. Lee, thus writes :—"Your case of chloroform death in midwifery, is, to the best of my belief, not the only one in Scotland. I was called, too late, to a case which died suddenly while taking it in *small quantity*."

Dr. Campbell, of Ayrshire, records another case of death in labor from its use. Mr. Carter says "that in two cases its effects would appear to have been pernicious."

Prof. Faye, of Christiana, has also recorded a fatal case of labor after its use.

Dr. Barnes says :—"In ordinary forceps cases chloroform certainly is not required, either to facilitate the operation or to allay pain." Indeed by its use in such cases we lose one very valuable indication by our patient's want of sensibility. Dr. Chas. Kidd evidently does not consider its use devoid of danger, as he advises the physician who administers it "*always* to carry in his pocket a portable galvanic chain or battery." Drs. Kidd and Richardson are reported as having seen many deaths after its employment; and the former gentleman "to have seen about 300 cases restored to life or rescued after they had been pronounced dead." I would ask, in the name of common sense, is it within the bounds of reason to believe that a medicine can be employed innocuously with the pregnant female, when confessedly its use has often been followed, not only by dangerous, but even fatal results under other circumstances, as testified to by Drs. Kidd and Richardson, amongst many others, as also by almost every periodical we take up? Dr. Show, in speaking of his imagined advantage of chloroform over opium in version cases, thus writes :—"If 50 or 60

drops of laudanum were given, the patient remained under its influence, more or less, for 48 hours." Now, in this I must join issue with the Doctor, for I am, and have been for years, in the habit of giving such, and even much larger doses in those cases, as also in hæmorrhage, and I never yet saw such a result, or one at all approaching to it. We have been told that across the Tweed death has not, in any instance, followed upon the inhalation of chloroform in labor, whereas some have been since recorded; and not very long ago I was informed, by more than one physician practicing in Scotland, that many have so occurred there, but not made public, yet well known to the profession. It is also a fact that some who have written favorably on its use have since changed their opinions, but have not said so publicly; and some give it only in name, or as has been styled *a la Reine*. The following is so apposite here that I cannot avoid quoting it from Denham:—"That chloroform may be, and sometimes is, given for the purpose of amusing patients, and making them believe that they are saved from a vast amount of pain, when in reality they have scarcely inhaled a single breath of it, I doubt not."

We very frequently see safer and better recoveries after tedious and painful than after rapid and painless labors, and the latter are not the less likely to be seriously complicated; indeed, in former days, when, happy for the parturient female, chloroform was unknown, and when meddlesome midwifery was strongly reprobated, such an opinion was entertained. *Apropos*, I have two patients—one the mother of five, the other of four children—who always have rapid and, I may say, painless labors, but which are invariably followed by alarming hæmorrhage, by no means an unusual occurrence, as already shown, after chloroform inhalation, besides being admittedly a fruitful predisposing cause of puerperal inflammation. In the employment of anæsthetic agents during instrumental delivery we deprive ourselves of a very valuable indication in the loss of our patient's sense of feeling, which the following cases forcibly illustrate; for had such means been resorted to in either, it must be evident to all, even to the most sceptical, that the consequences should have been most disastrous:—Mrs. D. had a very tedious labor with her first child. When about 36 hours in labor, the os uteri was found thinned and spread tightly over the head of the child, dilated to about the size of a shilling, but directed obliquely backwards and upwards, so located as only to be found by the well-educated and practiced finger. Her medical attendant, having failed to discover the

real state of matters, took it for granted that he only felt the head, which had passed through the fully dilated os, and proceeded, without further delay, to deliver her with the forceps; but from the great pain which she experienced from the application of its blades on the head so clothed, he was obliged to desist; and, being much alarmed, he sought for further assistance, after which the nature of the case was discovered, when of course, all interference was given over for the time, but eventually destructive instruments were had recourse to. The other was the case of Mrs. M., very similar to the former; but the perforator was the instrument employed, which the medical gentleman pushed into the cervix expanded over the head, when her piercing cries and some slight bleeding caused him to look more narrowly into the state of the parts. She was, however, afterwards naturally delivered, and had a good recovery.

At page 333 of the *Dublin Quarterly Journal of Medical Science*, for May, 1849, in the late Dr. Montgomery's essay upon "The Indiscriminate Administration of Anæsthetic Agents in Midwifery," we find a somewhat similar case recorded, in which the medical man mistook the attenuated anterior section of the cervix uteri for the membranes, which he was endeavoring to perforate with his nail, when the lady's cries arrested him.

Even though it were possible to divest chloroform of its dangers, it does not, as has been already shown, always produce the advantages expected from its use, as in version; for indeed not a few instances have been recorded of its having been an impediment to this operation, which in some cases could not be overcome. I cannot see any advantage derivable from the inhalation of this poisonous drug in cases of retained placenta, as generally such a complication is caused by inaction of the uterus; and our object, therefore, ought to be to induce uterine action, surely not further to paralyze it. Such treatment reminds me of a case which I was called to see 20 years ago. The placenta had been retained for 6 hours, and some draining was going on. The lady's medical adviser was looking on very complacently, and dosing her with tartar emetic. Of course there was not any difficulty in the extraction; but puerperal inflammation set in on the second day, from which she eventually but slowly recovered. Every practical man hails after-pains as salutary, especially after quick and painless labors, and would not dream of interfering with their wholesome action, unless very severe, for some hours af-

ter delivery; yet those misguided chloroformists think nothing of interfering with that safe action at times when the advent of hæmorrhage would complicate matters more seriously. The other objections to its use at other times, under certain circumstances, are equally admissible here. I think I have now demonstrated that chloroform inhalation is far from being a safe remedy in childbed, and should not then be employed.—*Dublin Quarterly Journal of Medical Science*, May, 1863.

AN ENEMY IN THE CAMPS.

A large portion of the national army is in a section of country notorious for the production of malaria, an enemy more insidious and more dangerous than all the physical forces that the rebels can bring to bear against the loyal troops. The records of the human race are filled with instances which prove the truth of which we speak. The rapid and overwhelming disaster to the forces of Sennacharib is familiar to readers of history, but it was scarcely more rapid or more crushing than the malarious destruction of the French army in 1528, which, while preparing to besiege the forts protecting Baiæ, was almost totally destroyed by disease. Of 28,000, but 4,000 remained alive, and they were helpless.

Until within a comparatively recent period the mortality in the British navy was 1 in every 8, then it became 1 in 13. The ship Columbus, with a crew of 400, lost in one season on a South American station 200 of her men. The causes of this state of things were obvious to all hygienic authorities, and they devised means of prevention that have reduced the mortality to 1 in 72, or to a ratio equal to that of the healthiest of the rural districts of England. Of these means we shall presently speak. We call attention now to facts connected with military matters. In Wellington's Peninsular campaigns from January 1811 to 1814, the battles of Albuera, one of the most desperate and bloody of the Peninsular War, Salamanca, Vittoria, the Pyrenees, Nivelle, Nive, Orthes, and Toulouse were fought, and Badajos, Ciudad Rodrigo and San Sebastian were stormed, besides many skirmishes not included in the list of battles, the entire loss in battles was 2,550, while that from sickness was 7,257. In the war with Burmah the loss by military forces was thirty-five per thousand, and from sickness the loss was four hundred and fifty per thousand. In the Crime-

an war, while the armies were encamped in the valley of Varna, in the midst of "large shallow lakes, surrounded by level spongy lands, indented with little hollows, dried and cracked by the recession and evaporation of the winter floods—low brushwood, rank in vegetation, bounding uplands, a deficiency of potable water, with a high temperature," we have all the elements of a devastating sickness. In the high temperature of the day, heavy masses of steam spread themselves over the camps, and at night heavy, chilling dews invaded every part of the camp, and carried the poison to every sleeper. The "tents were thin and permeable, the rations execrable," and no protecting care was exercised. A medical philosopher with these facts before him knows the result already. The French and Turks suffered terribly. Macleod says the hospitals recalled the horrors of Boccaccio. Half of the army of Espinasse, in the Drobrutcha, disappeared as by a whirlwind, and the panic among the survivors was beyond description. Cholera, intermittent and remittent fever, typhus and dysentery took possession of the camps—the encampment was broken up, and the army fled precipitately from the scene of the disaster—but the enemy retained possession of the men, and the horrors of Varna continued to follow them. The survivors continued for years to feel the dreadful visitation of the Drobrutcha, and those who seemed to have passed unscathed showed in subsequent wounds that the seeds of the poison of the camp had been merely latent. Among the English, there were in three months 897 deaths from cholera, and 75 from dysentery and diarrhœa. Dr. Aitkin says: "My estimates lead with still greater force to the conclusion, that the amount of sickness at Varna was greater than that of the French army in Spain, and nearly as great as the army of Portugal while engaged in very active campaigns, and this, too, though not a soldier in Lord Raglan's army had fired a shot." From October, 1854, to April, 1855, the army of 23,775 men, lost 9,248 by sickness, and 608 by wounds. In the last six months of the Crimean campaign, including the final assaults which carried Sebastopol, the French had 21,957 men wounded, and 101,128 cases of sickness.

Now, the great mass of this sickness was avoidable, and should have been prevented. In the Italian campaigns, Napoleon guarded his troops against the disasters connected with localities. He never encamped his armies in the neighborhood of malarial sources when he could avoid it, and when compelled to make such an encampment, he always built fires

at night between his army and the sources of this poison. We earnestly wish that we could engrave in vivid letters upon the memories of those who have the management of the American camps the following truths of Sir Baltingall. He says: "The experience of all ages has proved that the neighborhood of marshes, grounds subject to overflow by large rivers, surrounded by foul stagnating water, or low places covered with wood, are most injurious to health, and the noxious effluvia arising from these situations are augmented in proportion to the heat of the climate or the season of the year."

In all perils of this kind, the camp should be pitched so that the evening wind will blow the marsh air in an opposite direction from the camp. When this cannot be done, fires should be burned all night between the sources of the malaria and the camp. Malaria never acts in daytime nor at night upon a wakeful person in motion. Sentinels may walk in safety, where a sleeping army may be almost destroyed. No garbage should be permitted about camps. Let it be buried or thrown into running water. It should not be burned in camp.

As the sun climbs the ecliptic, he scatters the seeds of sickness northward. Rio Janeiro, Pernambuco, Cuba, Tampico, Vera Cruz, New Orleans, Vicksburg, and places still further northward take their turn. The cause of pestilence is now incubating in the regions held by our armies. They can and must be protected from the pestilence that walks in darkness only to those who wilfully shut their eyes. The men must be well fed, for there is a great truth in the aphorism, 'that the first condition of health is the good condition of the stomach.' M. Worms, in his work, "*Des Maladies de la Province de Constantine*," says: 'Those who are well nourished pass through or even sojourn with impunity in localities where others meet with disease and death. In the army, where soldiers and officers are exposed to the same morbid influences, the average deaths are one in twelve of the former to one in fifty-four of the latter. The officers, by the proper nourishment and the use of fermented liquors, sustain the vital energy, which has a tendency to fall into inertia, and so escape the effects of malaria, which makes ravages around them. The Commissioners of Inquiry of the British army at Sierra Leone found that the main cause of the fearful mortality from diseases of the digestive organs there, two-fifths of the cases having proved fatal, arose from the use of salt rations, and that by the substitution of a fresh meat diet, the mortality from these diseases was reduced to one-tenth of its former amount. Haliday's testimony is to the same effect."

The British Government has great faith in the preventive effects of Quinine, and the laws require its use as a prophylactic in all exposed situations in malarious regions. It is to the use of this article, in this way, that the improvement in the health of the British navy, on duty on tropical coasts is due.

We have indicated the perils of our armies in the South and the means of salvation. We appeal to the officers to see to the protection of the brave men committed to their charge.—*Sanitary Reporter.*

EFFICACY OF SESQUICHLORIDE OF IRON FOR THE TREATMENT OF ULCERS ABOUT THE NAILS.

M. Billon communicates the following to the *Journal de Med. et de Chirurgie :*

Dr. Caillet of Luynes (Indre et Loire,) having recently published a case in which the application of sesquichloride of iron effected a cure of the affection popularly termed *the growth of the nail into the flesh*, I take this opportunity of recording several instances of the same kind, witnessed by myself, which confirm the results obtained by M. Caillet, and may perhaps be deemed not wholly uninteresting. In 1858, Dr. Wahu, staff-physician to the army, having succeeded with this remedy in curing the painful diseases in question, I resorted to the same method, and with the greatest benefit in four cases. I may here remark that ulcers about the nails are occasionally observed among our soldiers, having escaped the attention of the medical boards, or being caused by the pressure of the boot during forced marches. Under these circumstances, a *prompt* and *painless* cure may be effected by inserting the *dry* sesquichloride between the nail and the protruding flesh, and powdering the latter with the same substance. A large bandage should be applied over all, not impregnated with the *liquid* sesquichloride of iron, as recommended by Dr. Caillet, a precaution which may, however, be useful, as the folds of the band dry rapidly, and preserve their situation in a more exact manner.

On the following day, the exuberant flesh is found to have acquired the hardness of wood ; suppuration speedily ceases, and a cure follows after two or three applications. This simple and mild treatment is obviously far preferable to the nu-

merous surgical procedures hitherto recommended. In the course of four or five days, in a week at the farthest, the original pain ceases, the swelling subsides, and the patient is able to walk. Naught remains but the hardened protruding flesh, which falls away about a month after the application of the sesquichloride of iron. These are the results yielded by the method in four soldiers suffering from the growth of the nail into the flesh. They have appeared to be sufficiently remarkable to warrant the communication.—*Reporter.*

M. DEMARQUAY ON ENGLISH SURGERY.

M. Demarquay has recently published in the *Union Medicale* (No. 70) some of the impressions he derived concerning English Surgery during his visit to London as a juror of the Exhibition. Upon the whole, we do not complain of the estimate formed by our *confrere*, who sees that there is something at least to be learned from our hospitals and our practice; but one or two statements may be noticed. He seems to think that we administer chloroform in a far too free manner—an observation to be expected from a surgeon of the Paris hospitals, in which this assuager of suffering is often very imperfectly employed. The reason M. Demarquay assigns for such imperfect administration is of that idealistical kind we have become in the habit of regarding as peculiarly French. He says that when the English patient is brought completely under the influence of chloroform, "a painful feeling is produced when we behold placed upon the operating-table a human mass brought there solely to undergo the operations indicated by art. As chloroformization is continued during the entire period of the operation, and the patient is carried away while still under the influence of the anæsthetic, there results a complete isolation of the patient and the surgeon, which is truly painful. The man is effaced by such a mode of procedure, the operator becoming a mere instrument, and the patient mere matter for operation. Those moral and sympathetic ties, which become established between the operator and the operated prior to the operation, and at the moment when the patient returns to his senses, have no place in the English hospitals, where this mode of procedure prevails. In this point of view ours is the better practice." Aye, in this point of view; but what is it in

the patient's point of view? Freedom from pain, rather than a "moral sympathetic tie," is, we take it, the grand point with him.

The construction and convenience of our operating theatres, their admirable illumination, the mode of transporting the patients to and fro, and the mode of dressing, receive great praise at the hands of M. Demarquay, contrasted as they are with what prevails in France. In comparing the results obtained in the two countries, he observed that we must bear in mind that the London patients can bear operations much better than the Parisians, who are of a far more nervous and impressionable temperament, whatever this may be due to, whether difference in race, in habits, or in manner of living. With respect to the diagnosis, he considers that French surgery is more minute, precise and affirmative, while in indications of treatment English surgery is more bold and more hasty. Thus, in respect to the numerous and remarkable examples of excision met with in the London hospitals, there has not first taken place in these cases that series of local and general treatment which would have been put into force in Paris. While English surgery is so proud of the results of these operations, French surgery is better pleased with avoiding such operations by medico-chirurgical treatment, and thus preserving their limbs in their entirety. In calculating the statistics, we may expect a greater proportion of favorable results from the English resections than from the French, as these latter are not resorted to until the last extremity, when all other means are exhausted. The true object of inquiry should be the diseases of the joints themselves; are they best treated by these more prompt and hasty operations, or by more varied and more expectant therapeutical agencies? But M. Demarquay finds that if, in some respects, London surgery is bolder than French, in others it is more timid. Thus, delicate operations for the removal of malignant tumors are much rarer in London than in Paris. We believe that this class of operations is of more common occurrence in our hospitals than M. Demarquay supposes, and that their greater rarity, compared with what prevails in Paris, is not due to any predominance of special hospitals, but to the increasing want of confidence entertained in their efficacy by our surgeons.—*Medical Times and Dublin Medical Press.*

SYPHILIS COMMUNICATED BY VACCINATION.

M. Devergie read before the Academy of Medicine, May 19th, a paper entitled "Tuberculous syphilide generalized in a boy fifteen years of age, with the presumption of infection by vaccination inoculated from arm to arm, at the Hospital Saint Eugenie."

Alfred Desire S., aged fifteen years, a cabinet maker, March 11, 1863, entered St. Louis Hospital. His father is dead from wounds; his mother enjoyed good health. Seven months previously Alfred Desire was under the care of M. Barthez, at Saint Eugenie, for a pleurisy. He left the Hospital, cured, at the end of twenty-three days. Eight or ten days after his entrance into Saint Eugenie, he was vaccinated on the right arm with some matter taken from the arm of a nursing child. A number of children were vaccinated the same day with the same vaccine matter. The lancet which was used had not been used before, according to the declaration of M. Fritz, the *interne* of the ward. Three days after the vaccination a small brown crust appeared on the point of insertion of the matter. The crust enlarged and the skin became red; the boy did not say anything about it, and did not have his arm examined before leaving the hospital, nor during his stay in the convalescent house. However, during this time not only the primitive redness persisted, but it extended, without any inconvenience being felt by the boy. Five or six weeks afterwards, an eruption of *boutons* on the arms and thighs; thickening of the skin around the colored point of the arm; two new eruptions of *boutons* more extended; hoarseness towards the third month; osteoscopic and rheumatic pains. On his admission into St. Louis Hospital, (March 11,) papular eruption over the whole surface; impetigo of an elliptical form on the upper lip; three tubercles of recent origin and indurated, on the prepuce; some enlargement of ganglia in left groin; in the neighborhood of the vaccination, on the right arm, a round surface where the skin is thick, hard, unequal, and of a sombre red; ganglia of the armpit voluminous and indurated on the right side only. The anus is healthy, and presents none of the characteristic signs of syphilis. Anti-syphilitic treatment (iodide potas. pills of Dupuytren) was followed by improvement at the end of six weeks; impetigo of the lips cured; all the tubercles have become more pale; the skin around the vaccination has become

supple, discolored at its circumference; hoarseness has disappeared; health excellent.

The diagnosis of the disease, says M. Devergie, has not been doubtful a single moment. At present, as the symptoms are notably diminished, they have not, however, yet raised the least uncertainty on the part of the members of the Academy to whom the boy has been shown.

What is the point of departure of these accidents? There is the whole difficulty. We have not the certificate of its origin; perhaps we may be able to obtain it in consequence of the efforts on the part of the administration of the hospitals. We have not found on the penis of the boy any trace of chancre. The facts which he has given accord with that which science has taught relative to the evolution of syphilitic accidents. All these reasons establish strong presumptions in this case on the inoculation of syphilis by means of vaccination.

M. Ricord—Admitted that he had denied the transmissibility of syphilis by vaccination. For a long time demonstrative facts have failed, and everything justified us in denying it. But observations have multiplied, the proofs have accumulated, and the demonstration is at present so convincing that it is not permitted to any one to hesitate to accept as certain this mode of transmission. Recently still we observed in the service of M. Trousseau an analogous case to that of M. Devergie. But, in spite of all, that which is certain is, that in one way or another the syphilitic accidents were not the result and as the explosion of an anterior and latent constitutional syphilis. In two patients the infection was recent, and the vaccinal puncture had evidently served as the point of entrance of the syphilis. Nevertheless, in spite of the facts collected up to the present, a question remains still to be solved: it is that relative to the conditions in which the vaccinated persons must be found in order to transmit syphilis. Here is all the obscurity—all the confusion.

At best, what presumption can be drawn from the examinations of the parents or the child? A child born syphilitic may present at birth, and for a long time afterwards, the most perfect appearance of health. It could then at the time when it is vaccinated present no manifestation of constitutional syphilis. The father and mother might equally, however syphilitic they may be, preserve no trace of the primitive accident, and present actually no secondary sign of the disease. Then there is another difficulty—another mystery: the father according to the law, *pater quem nuptiæ demonstrant*,—is he always

the father according to nature? Alas, no! It is this fact which may cause a child to be syphilitic, although its legal father may not be so; and consequently it is barely possible, in some circumstances, to assure the health of the child from that of the father.

Can we learn anything from the age of the child? No. The epoch when the constitutional symptoms of syphilis break out with children is very variable. These symptoms show themselves rarely before birth; we do not see them appear, as a general rule, before the end of six weeks or two months, or even in the fifth or sixth month. This uncertainty in the manifestations of hereditary syphilis leads us to the fact that age does not authorize us to prejudge anything.

Is it possible for us to be instructed better by the puncture and the vaccinal eruption? If in some exceptional circumstances the vaccinal *bouton* has appeared suspicious or gives place to doubt, in the immense majority of cases, as in that of M. Devergie and M. Trousseau, the vaccinal eruption offers no specific character, and has all the appearance of the best vaccination.

M. Ricord concluded from all these considerations, that very often, the oftenest even, no index could enlighten the physician on the state of the health of the child vaccinated, nor of the quality of the vaccine matter which is used; that we could not consequently place on the operator the responsibility of a transmuted syphilis by vaccination.

M. Gosselin—Is very ready to believe that syphilis may be transmuted by vaccination; but it is a fact so grave that he would not wish any one to pronounce it until he had proved it by all means. It would be necessary, for example, to know and examine the parents of the vaccinated child, to follow the the child, and to know what happens to all those who are inoculated with its vaccine matter.

M. Devergie—Said that he had commenced an inquiry of this kind, and that he relied on the well known zeal and devotion of M. Husson, director-general of *assistance publique*, to carry it out.

M. Depaul—Has been for a long time convinced of the contagion of secondary accidents, and especially of the transmissibility of syphilis by vaccination. Science possesses at present on this subject facts very authentic and more complete than the one reported by M. Devergie, which assuredly is not sufficient by itself to be convincing. He desired to place himself in opposition to the opinions emitted by M. Ricord. He be-

lieved that we can very essily recognize in general, and by certain signs, a child attacked by hereditary syphilis. For it is an error to pretend that the most part of syphilitic infants present at their birth, and for a long time after, the best appearance of health, and that the accidents do not break out until the age of two, three and six months. Such an opinion can only rest on an incomplete or superficial study of the question. The truth is, that constitutional syphilis manifests itself ordinarily in infants from the birth, or from the first weeks, either in the form of pemphigus neonatorum, or by other symptoms less evident, perhaps, but not less characteristic for a severe observer, for a careful *clinician.* M. Depaul did not think that he had ever been deceived, either in his hospital practice or that of the city, or in the vaccine service in which he had served with M. Bosquet. He had examined with the greatest care all the children who were brought to him by the mothers, and he declared that after this double examination he was so sure of the vaccine matter which he employs that he would not hesitate to vaccinate himself with it.

M. Ricord—Congratulated M. Depaul on the kind of immunity which he enjoyed from the academic vaccine matter; but in his opinion that simply proves that the transmission of syphilis by vaccination is very rare and very difficult. For what serious guaranty can be offered for all those children which are brought from all quarters to the Academy to be vaccinated? Do we know from whence they come, and who are their parents? We must, then, attribute not only to the skill of M. Depaul, but perhaps also a little to chance, the happy fact stated by the honorable vaccinator. M. Ricord has not certainly seen as many new-born children as M. Depaul; but he believes he has seen as many syphilitic ones as that gentleman. He says with great certainty that he has rarely seen constitutional syphilis manifest itself at birth, while he has often seen it, and the most frequently, not show itself until two or three months after.—*Edit. Trans. Lancet and Observer.*

☞ Nobody will deny, that cures may be effected in quite different ways, and that the apparent contradictions in treatment may dissolve into unity, by the various operations of the organism. Organic nature is not confined within such narrow limits as are our systems; if it were so, one after another would not have had its ascendency, and been applied with success.—*Hufeland.*

ON THE USE OF MEDICATED PESSARIES IN THE TREATMENT OF UTERINE DISEASE.

By THOMAS HAWKES TANNER, M. D.,

Assistant-Physician for the Diseases of Women and Children to King's College Hospital, etc.

The great value of a variety of local applications in the treatment of uterine disease seems to be insufficiently appreciated by the profession at large. This is somewhat strange, considering the time which has elapsed since Dr. Simpson specially directed attention to their exceeding utility. Yet it is certain that a large number of practitioners know of no agents which may be directly applied to the uterus and vagina save the various kinds of caustics and injections. The latter are certainly of great benefit in many cases; but it must be allowed that, even when properly used, they are often of only temporary service, since they cannot be kept in contact with the diseased part for more than a few minutes.

The chief reason, I believe, for the non-employment of medicated pessaries has been the difficulty of so making them that they can be efficiently applied by the patient herself. When formed of certain drugs mixed into a mass with lard and wax they are either so soft that the sufferer cannot introduce them into the vagina; or, on the contrary, they are so hard that they fail to dissolve, and are expelled in just the same condition as that in which they were introduced. Although I have now employed these agents very freely for some years, I have found very few druggists who would take the trouble so to make them that they were of any service. The difficulties just alluded to have, however, been overcome since Mr. White Cooper directed attention ('Lancet,' 28th June, 1862) to the utility of the butter obtained from the *Theobroma Cacao* nut, from which chocolate is made, as the basis for ophthalmic ointments. This material possesses many valuable qualities, the chief being these:—It has an agreeable smell, and does not soil the fingers when handled; it does not become rancid; while, more particularly, though very firm, it has the property of becoming fluid at a low temperature. It is sometimes a little to stiff, but this fault is readily obviated by combining with it a little olive oil or glycerine. Pessaries made with cacao butter, though they have the consistence of wax while

cold, are dissolved in the course of a few minutes when introduced into the vagina.

If ophthalmic surgeons are much indebted to Mr. White Cooper for directing attention to the uses of this butter, obstetric physicians are under no less an obligation. For although it had been used in America for making ointments for some time before this gentleman wrote of its merits, yet no physicians in this country were acquainted with its value, as far as I can learn from many inquiries.

The following formulæ for medicated pessaries are given as examples of the way in which I generally prescribe these remedies. It is only necessary to premise that rather large doses of the different drugs are necessary, inasmuch as absorption through the walls of the vagina is slow and uncertain :

1. *Iodide of Lead and Belladonna Pessaries.*—℞. Plumbi Iodidi, ℈ij ; Extracti Belladonæ, ℈j ; Butyri Cacao, ʒiv ; Olei Olivæ, ʒj. Misce. Divide into four pessaries, and order one to be introduced into the vagina every night or every other night.

2. *Mercurial Pessaries.*—℞. Unguenti Hydrargyri, ℈iv—ʒij ; Butyri Cacao, ʒiv ; Olei Olivæ, ʒj. Misce. Where there is tenderness of the cervix uteri, one scruple of extract of belladona or two scruples of extract of conium should be added to the mass. Divide into four pessaries.

3. *Lead and Opium Pessaries.*—℞. Plumbi Acetatis, ℈j ; Extracti Opii, gr. xij ; Butyri Cacao, ʒiv ; Olei Olivæ, ʒj. Misce. Divide into four pessaries. Order one to be used every other night.

4. *Zinc and Belladona Pessaries.*—℞. Zinci Oxydi, ʒj ; Extracti Belladonæ, gr. xij—℈j ; Butyri Cacao, ʒiv ; Olei Olivæ, ʒj. Misce. Divide into four pessaries. One to be used every night.

5. *Iodide of Potassium and Conium Pessaries.*—℞. Potassii Iodidi, ʒj ; Extracti Conii, ℈iv ; Butyri Cacao, ʒiv ; Glycerini puri, ʒj. Misce. Divide into four pessaries, and direct one to be used every night.

6. *Tannin and Catechu Pessaries.*—℞. Tanninæ, ℈ij ; Pulveris Catechu, ʒj ; Butyri Cacao, ʒiv ; Olei Olivæ, ʒj. Misce. Divide into four pessaries, and order one to be used every other night.—*Trans. Obstetrical Society of London.*

THE USE OF CALOMEL IN THE ARMY.

In the last number of the *Circular* we published an order of Surgeon-General Hammond, excluding Calomel and Tartar Emetic from the army medical Supply Table, on the ground that its use has been indiscriminate, and too often unnecessary and mischievous. This interdict has produced, as might have been expected, a great commotion among the medical hosts both in and out of the army. The *anti-mineral-poison* doctors, who have been indulging for years in a hullabaloo against these and like potent remedies simply because, so far as we could understand them, they were taken from the mineral kingdom, are in ecstasies at this seeming compliment to their medical sagacity; while the *old fogies* or conservatives, who took their first lessons in the treatment of diseases long years ago, consider the order as a radical and presumptuous innovation upon custom and science, that the experience of many generations has sanctioned and sanctified. There is another class of practitioners, who care but little for what was done by the fathers, and who respect still less the "herb," the "water," and all other interlopers in the domain of medicine, that think they see prodigious medical progress in the Surgeon-General; and this rescript they look upon as one of its manifestations.

We confess we feel but little concerned for the results of the movement. We have no apprehensions that sick soldiers will suffer from it. The use of Calomel without therapeutical principles or pathological reasons has been too much the fashion among mere routine physicians, and the art of medicine will gain by restricting it. If there are constitutional affections in the army that seem to demand mercury in their treatment, other, and for such purposes better preparations, are still left to the surgeons for such uses. Blue mass, corrosive-sublimate, mercury and chalk powder, iodide of mercury, &c., are all or each available, and there are but few cases in which these will not be found to answer every medicinal indication of a constitutional nature that can be presented. We grant that calomel is often abused, say the conservatives, yet this order is a general impeachment of the professional intelligence or integrity of army doctors, and therefore it is unjust and improper. But it is said that the Surgeon-General has such indubitable facts as to make it clear that it is both just, proper, and humane. Many surgeons may be trusted to use it, with-

out any fear of its being abused, but there are also many who would resort to it from deficient knowledge or from the force of a pernicious habit. Remove the incompetents, it is said. This has indeed been done already to a great extent, and the business is still going on, but to purge the whole medical corps is a work that can scarcely be done while this war shall last. Instead of wasting time in untying the knot it is far better that it be cut at once, and then wait to learn if the process will work kindly.—*Drug. Circular.*

THE WESTERN MEDICAL DEPARTMENT.

In equipping for the field the immense armies which the rebellion has called forth, one of the most serious obstacles which the Government has had to contend against is the difficulty of being prepared in all emergencies with surgical and medical appliances of all kinds for the wounded, together with the thousand and one necessaries which on such occasions are indispensable, and though easy to procure for a single individual, are very difficult to be had when those stricken down by the enemy's fire are counted by thousands. To furnish such, the Medical Department of the Army, with the co-operation of the Sanitary Commissions, have made strenuous efforts, yet in many instances after the battles which have been fought during the campaigns in Virginia, especially after that of Antietam, there was almost an entire lack of requisite medical aid and of those necessaries we have alluded to, entailing consequently much suffering on the unfortunate men who were wounded in those actions; this, too, occurring in the immediate vicinity of the great cities of the East. It is, however, gratifying to know that in the Western Departments, thanks to the profound foresight, professional skill, extensive experience, and unusual administrative ability of Colonel R. C. Wood, the Assistant Surgeon-General of the United States Army, no action has been fought, since that officer assumed the duties of Chief of the Medical Department of the West, (and which for the information of our readers, we will mention comprises fourteen of the Northwestern and Southwestern States,) after which there was any want either of surgical aid, medical attendance, appliances, or comforts for the relief of those who had suffered in the engagement. At all times there has been found in the vicinity of the scene of anticipated action these important supplies, and this fact, so patent to all,

and its truth so universally acknowledged, is the more remarkable when we consider the disadvantages which, from a variety of causes, the West has labored under; the difficulties of transportation through a country hostile to the forces occupying it, and the impossibility of obtaining extraneous professional aid, in districts but sparsely settled, and frequently disloyal.

Two Commanding Generals in the West, both at this time operating in the field, have accorded unbounded praise to the Medical Department of the West, not only for unceasing efforts in being ever prepared for emergencies, but also for the ample care and accommodation it has always afforded the sick as well as the wounded of our armies.

The following extracts from a letter dated June 9th, 1863, addressed by James E. Yeatman, Esq., President of the Western Sanitary Commission, on returning from a recent visit to the scene of operations, to the President of the Chamber of Commerce of St. Louis, attest the perfection, in every particular, of the arrangements made in the vicinity of Vicksburg for the relief and comfort of the wounded soldiers:

"The arrangements of the Medical Department, under the direction of Surgeon M. Mills, U. S. A., Medical Director of the Army of Gen. Grant, were most excellent, and the transportation of the sick and wounded, under Dr. A. H. Hoff, Surgeon in charge of the hospital steamer D. A. January, were more perfect than they have ever been before."

"The wounded were so well provided for by the Medical Department that it was not necessary that our steamer should be used for hospital purposes."

Nor are the above statements the only evidence which can be brought in proof of the admirable administration of the Medical Department of the West, for it has been conceded, without exception, by Governors of States, officers, civilians and others interested, that all supplies have been in great abundance; at all times on hand for emergencies in the rapid and peculiarly arduous campaigns of the war, and far beyond the wants of the army; that visitors to the scenes of action are always not only astonished at the comforts furnished, but leave quite satisfied that the soldiers are well cared for by the Government for which they are fighting.

Further testimony than this could be readily added, were it necessary, but we think sufficient has been said to show that, in spite of the many advantages enjoyed by the Eastern Department, the Medical Department of the West will not suffer by being contrasted with it, either in its administration or the professional talent it displays.—*St. Louis Republican.*

"SCAVENGERS OF NATURE."

In the Report of the Board of Health of the City of Sacramento, California, for the year ending March 31, 1863, Dr. H. W. Harkness has the following remarks in respect to the influence of the terrible inundations of the winter of 1861–2 on the public health. They shew a remarkable provision in nature to counteract the evil effects which might otherwise arise from decaying vegetable matter:

"The sanitary condition of our city during the past year fully confirms me in the belief that the simple overflow of lands, although existing for months during the cold season, is not necessarily injurious to the health of the locality, providing there be not a large quantity of decomposing vegetable matter to poison the air upon its subsidence. Of the truthfulness of this theory, we have, as I think, ample evidence in the results of the flood we have of late encountered.

The inundation of December, 1861, took place at a time when our city was best prepared for it. The vegetation, already completely dessicated by the autumnal sun, had almost entirely disappeared; the deposit of alluvion or sedimentary matter buried the remainder. This sedimentary deposit, so pernicious to many localities, was really to us beneficent. Had the supply of water been derived from the drainage of table lands, covered with lakes and swamps, bringing with it the debris of the previous summer's luxuriant growth, together with the myriad germs of plants of a microscopic and larger growth, the results would, no doubt, have been far different. But such was not the case. The water was derived exclusively from the American river, supplied from an exceedingly mountainous and sterile tract of country, furnishing but little of that material which would contaminate the atmosphere, and, besides the cottonwood and willow, but few of the germs for future growth.

"Owing to the above named causes and the low temperature of the water, no deleterious effects were apparent upon its subsidence. But there were those who believed that much mischief would result from the great number of pools left in every part of the city, and that when these became heated by a semi-tropical sun, fevers would prevail to an alarming extent. These sad forebodings were, happily, not realized.

"To the student of natural history, these small bodies of water were a great source of instruction and delight. In no place on this continent, perhaps, was there ever a better field for the observation of the microscopic world. In none, owing

to favorable accidents, was there a greater diversity of the living organisms which the microscope reveals.

"These bodies of water were the favorite localities of the vast family of microscopic plants, whose germs are in many instances conveyed in the air. Amongst these may be mentioned the *Valvox Globator*, the *Bacillaria*, the *Diatomea Vulgare*, and the great family of the *Conjugatæa*, all of which are so minute as to be invisible to the unaided eye. These, if allowed to multiply without hindrance, would soon fill the water, and, although not noxious in their living and growing condition, would, on their death and decay, poison the air we breathe. Such results are counteracted by a new set of living organisms more wonderful still.

"All our citizens have noticed the green scum found floating on the surface of shallow ponds, from which they are accustomed to turn with disgust, and ascribe it to some injurious property. Push aside with a cane this apparently filthy covering, and you will observe the water, which but a day or two since was turbid, is now sweet and clear.

"Bring a portion of this green scum under the powers of the microscope, and it is found to consist of innumerable slender cylindrical-formed animalcules (the *Enchelia* of Ehrenberg), whose interiors impart the color from their distention with vegetable matter. And thus has this wonderful change been brought about by the innate wants of this living and growing spec, varying in size from 1-1200 to 1-400 of an inch; the matter which would otherwise decay and putrify is removed and its noxious effects on man and beast prevented. Other pools are alive with *Monads*, still more minute, whose bodies, from the same cause, impart to the water a tint of paler green. Others, again, are teeming with the *Rotifer Vulgaris* and the *Parameceum*, presenting the appearance of a greasy film as they float upon the surface of the water; the *Vorticella Convullaria*, with its wonderful apparatus for obtaining its food; the *Brachionis*, with its tortoise-like shell; the *Vibriona*, with elongated bodies so small as to require an instrument of great power to observe them, and many other varieties, all actively engaged either in the destruction of vegetable matter, or in preying upon one another.

"In this manner the equilibrium between the minute vegetable and animal kingdom is preserved by the action of these living atoms, who have well earned the title of 'Scavengers of Nature.' The water is rendered sweet and clear, and many of the fairest portions of earth are made fit for the habitation of man."—*Register.*

ORIGINAL COMMUNICATIONS.

FOREIGN CORRESPONDENCE.

PARIS, July 31st, 1863.

Prof. E. INGALS, M. D.,—*My Dear Doctor*, The first impressions of Paris differ entirely from those obtained by a first look at London. We have left behind us the fog and mists, the fitful sunshine and blackened walls of that immense city; and are now in the genial atmosphere of unclouded skies, surrounded by the light and cheerful edifices of Paris. Probably no city ever underwent greater or more rapid changes in external appearance than this, during the last ten years. Changes, too, which contribute not only to the beauty, but also to the Sanitary condition of the city. If Gibbons could speak of Paris as "the splendid capital which now embraces an ample territory on either side of the Seine," what would he say of the Paris of 1863, could he behold the imposing grandeur and magnificence of her modern buildings—the sweep and breadth of her boulevards, squares and gardens which have displaced the high, gloomy and desolate looking houses, and narrow lanes and passages into which the fresh air never penetrated, and the sun's rays never shone. The scene that meets the eye in an external survey of the city, is in keeping with the beauty of architectural design—for all that appears upon the surface leads one to the conclusion that pleasure is the uninterrupted occupation of the people. One continued display of gayety and festivity is almost always and everywhere observed, to the apparent disregard of the natural divisions of time—they whirl along much the same through all the hours of day or night—and if perchance overtaken by fatigue, stop for a short time, and start again as before. Indeed a doubt at first rests upon the mind, whether in the midst of this excitement

material could be found to render even a brief communication of any interest, but there are other scenes in this beautiful, gay and festive city. When permitted to look behind the screen, as the physician may do, other sights are beheld which extort sympathy from the most unwilling heart, and affords a saddening contrast to the glitter of gayety which the surface presents. We have but to walk through any of the numerous hospitals here to behold the wonderful transition which a short course of dissipation will effect, in the numerous victims gathered here from all conditions of life, written in the wan and faded cheek, the wrinkled brow, the palsied limb, and the anguish stricken heart.

The hospitals of Paris receive annually 90,000 patients, 5,200 of whom are always under treatment, besides these the directors grant relief yearly to 50,000 indigent families. These institutions are supported in part from the public treasury—largely by private munificence—a heavy tax is levied on every piece of ground purchased for the purpose of burial in cemeteries, and also a tax of 8 per cent. on the receipts of places of amusement, to aid in defraying the expense of the hospitals of the city—this latter fact is suggestive of what should be done in our own country for the same purpose.

The number of physicians in this city is about 2,000, or one to every 750 of the inhabitants. The number of medical students is about 1,200, who are at present undergoing their examinations, it being near the close of the lecture term.

No professional man fails to visit the wards of the Hotel Dieu, as it is the most ancient institution of the kind in Paris —its foundation dating back so far as the year 660—and also because it may be taken as a model of all the others. It is composed of three detached portions connected by covered archways, and an aqueduct leading under the quay. It receives annually about 12,000 patients. On the walls of the vestibule are seen the portraits of Bichat, Deraust, Moreau, Dupuytren, Bonden, Mery, Desault, and Thebault. While standing within these ancient walls—in the very theatre of the brilliant

career of so many worthies who have contributed to the advancement and elevation of medical science—one almost feels a solemn veneration for our noble profession.

We meet here on active duty M. Trousseau, DeMussy, Barth, Maisonneuve, and others.

The Hospital Lariboisiere is a modern and, in its design, a model institution, the general form is rectangular. A tasteful colonade fronts a spacious court, inclosed by nine uniform pavilions, which are separated by smaller courts and gardens, thus guarding against the extension of contagious diseases. Here we witness the operations of M. Chassaignac, many of which are performed with the ecrassum. From prejudice or some other cause this instrument has not obtained much popularity with surgeons here.

At LaCharité M. Velpeau is in active service, and followed by a large class of students.

The clinics of M. Paul Dubois are attended by many students who are just completing the period of their pupilage, and preparing for the duties of private practice.

The institution of not the least interest is the Musee Dupuytren, where the effects of almost every variety of disease are represented, and may be studied in some one or other of the numerous pathological preparations preserved here.

The physician can obtain a just idea of the "*Expectante*" mode of treating disease, only by walking the wards of the Parisian hospital. Here he will be impressed with the care and doubtless the accuracy in making diagnoses—and when that is reached, as if the only object was attained—the inevitable "*Potage*" is prescribed till the next visit—possibly some liniment may be applied externally. M.

PARIS, Aug. 12th, 1863.

In some respects the medical profession of France enjoys an enviable position. The stringent requisitions for entering its ranks, and the laws regulating the practice, at the same time protect the community and guard the interests of the fraternity. There are only three schools in France which may grant degrees conferring the right to practice in any part of the Empire. They are located, one each at Paris, Montpellier and Strasbourg. There are, however, Secondary Schools of Medicine in other parts of this country where the student may pursue his studies. Thus the profession is seldom brought into competition with the ignorant and vaunting mountebank. An incident occurred here within the last week which shows the mode of treating such cases when they occur. One "Dr. Vries," the "*Black Doctor*," who some time since obtained some notoriety in a similar way, was arrested on the charge of usurping the title of doctor, and of illegally practising medicine. The proof was deemed sufficient to convict, and the penalty was fixed at a fine of 2,000 francs and six months imprisonment, and he to pay costs of the prosecution.

The École et Maison D'Accouchement has 416 beds. Women are received here in the last month of their pregnancy, and are attended in their confinement by females, or in difficult cases by the surgeon of the establishment. The mean term of the patient's abode here is 18 days. Medical students are excluded from this Hospital, which is devoted to the instruction of young women as midwives. After a course of two years, these pupils are examined, and are allowed to practice on receiving a diploma. The number of licensed midwives in Paris is about 450.

M. Depaul, who succeeds M. Dubois to the chair of Obstetrics in the Faculty of Medicine, is spoken of in the highest terms both as a gentleman and practitioner. And notwithstanding he does not bring the prestige of the name of Dubois he is acceptable as a teacher. M. Pajot's *lectures* on the same subject are spoken of as very good.

Hopital Necker, situated in the southwest part of the city, contains 386 beds, 12 of which are appropriated to calculary diseases, and are under the control of M. Civiale- The operation of lithotomy, I understand, is seldom performed in this institution. Yet while the stone is broken down and removed from the bladder piecemeal, it is at the expense of so much time and local injury to the passage, that I am not surprised the operation of Lithotomy has not been generally adopted. One is sometimes disappointed in not seeing greater dexterity and brilliancy in the operative surgery of Parisian Hospitals.

Chloroform is considerably used here, but I am in doubt whether their patients receive all the benefit from it that they should. I have not witnessed a single operation of any importance in which the patient did not manifest the greatest suffering. M. Chassaignac, in his clinic, said very truly, that chloroform should be introduced into the system *slowly;* and when it began to affect the patient, if no unpleasant manifestations occurred, then it may be administered to almost any extent. Then I was at a loss to understand why sufficient was not given, if not to remove the pain of the operation, at least to assuage the suffering.

The "Jardin des Plants" is one of the most interesting points in the city. It is really a most perfect school for the study of the natural sciences. The collection of animals is very extensive. The Botanical garden covers a large extent of ground and is most admirably arranged. The Museum of Comparative Anatomy is said to be unequaled. In the department of Geology, Mineralogy, Materia Medica, &c., nothing is left to be desired. Free access is permitted to all visitors, whether for the purpose of study or curiosity.

Among the many enthusiastic cultivators of Medical Science here, few if any have been more industrious or successful than M. Ordonez, who is almost entirely devoted to Histology In his classes are many students from America, who are universally pleased with him. He is engaged, besides teaching, in the preparation of a systematic work, based on original ex-

periments and observations, which with his peculiar arrangement and classification, promises to be a valuable addition to the literature upon that subject.

The weather has been uninterruptedly delightful in Paris for weeks past, but for the last four days the heat has been quite oppressive. The thermometer ranging from 95° to 97° in the middle of the day.

Unprecedented preparations are being made for the annual fete, on the 15th inst., which, it is determined, shall *outshine* all previous demonstrations of the kind. M.

REMOVAL OF AN ENCYSTED FIBROUS POLYPUS, 4½ INCHES IN DIAMETER, FROM THE UTERUS, WITH THE "ECRASEUR."

By MORTON MONROE EATON, M. D.,
Of Peoria, Illinois,

Mrs. W., of this city, consulted me about 3 years since, relative to her irregular menstruation, and great pain in the womb. On a digital examination, I perceived that the uterus was enlarged to the size of a fecundated womb, 3 months along—by the speculum I found the cervix uteri healthy, the os closed, &c. She gave the history of her case as follows: "She had not been well for 8 years, when her last child was born. Her menstrua had been too abundant, recurring every 2 or 3 weeks. Her appetite was, and had been, good, though she was weakly from the great loss of blood. She had consulted and been treated by several good physicians, each of whom gave a different diagnosis, and pursued a variety of methods for her cure, all equally without giving more than a temporary relief, all finally saying they were at a loss as to

what was the matter and prognosed that she never could be cured.

I told her that she had something in her womb, whether a fœtus or a tumor I could not tell; though from what she said I thought it was a tumor of some kind. I gave her Ferri Pulv. and Strychnia as a tonic, under the use of which she rapidly improved every way--when I lost sight of her till about May 25th, '63, when I was called to her. Found her suffering something like labor pains. A digital examination found the os uteri dilated to the size of a half dollar, through which I could detect a globular body, apparently as large as a child's head, in the womb, very hard and unyielding. I was now sure I had a fibrous tumor in the womb, as she evidently was not pregnant, for the abdomen was not much enlarged. She was flowing freely at this time. I gave ergot tea, and watched progress. The tumor came down through the os, completely filling the pelvis, so I could not pass my finger up on either side of it, and coming within an inch of the external genitalia. At this time I was called to Vicksburg, Miss., to attend to our wounded, and left the case with Dr. Dickinson who diagnosed a fibrous tumor, but as the hæmorrhage had ceased, gave her only anodynes and tonics a few days when she was able to be around.

July 1st, soon after my return from the South, I was called to the case again, to find her flowing profusely and the tumor -'in statu quo." I recommended its removal, and was seconded by Drs. Frye, Dickinson, Hamilton and Case, whom I invited to see the case, but the patient would not consent to the operation, saying, she would die anyhow; so I only gave anodynes and astringents, with tonics. I told her she need never send for me again unless she wished me to remove the tumor, as it was useless, the hæmorrhage was sure to recur so long as the tumor remained.

August 17th, I was sent for to remove the tumor, the messenger stating she was now worse reduced than ever. I called at her residence and found her almost pulseless, with a cold

sweat on all parts of her body. I gave tonics, stimulants and astringents, and applied cold to the genitals, and over the gastric region, and told them she was too weak to have the operation performed then. Under this treatment she revived, the hæmorrhage ceasing entirely after two or three days, and on August 24th, she having become much recruited and desiring me to perform the operation, (though she was still unable to sit up,) I proceeded to do so in the presence of Drs. Dickinson and Hamilton. Dr. H. administered chloroform; I lengthened the chain of the ecraseur with a wire, to get it over the tumor, after which I took up the chain 16 links, and gradually turned the thumb-screw till the chain cut through which took about ten minutes, at the slow rate, adopted to avoid all hæmorrhage after the operation. As the chain cut through, a amount of a creamy fluid escaped from the vagina, and the tumor collapsed to about one-fourth its former size when it was easily removed with the fingers. This was found (by making a section of it) to consist of yellow, elastic fibrous tissue, and to measure $2\frac{1}{2}$ inches in diameter and about $7\frac{1}{2}$ inches in circumference. The fluid that escaped seemed to have been infiltrated all through this elastic tissue, as there were several sinuses coming through it, in a collapsed state. No hæmorrhage followed the operation. She recovered from the chloroform well, and has had no unpleasant symptoms since. Now, a week after the operation, she is able to be around the house, and is feeling quite strong, and more comfortable than she has for 8 or 10 years.

This is the first time I have had occasion to use the ecraseur and I desire to recommend it to the profession as just the instrument for such a case. The pedicle of this tumor was an inch and a half in diameter, of solid fibrous tissue, and the removal of it with the ligature would have been both tedious and painful. With the ecraseur my patient experienced no pain or inconvenience. I believe this instrument can be advantageously used more frequently than it has been. I have recently been consulted about the removal of an ovarian tu-

mor, in which case I think the ecraseur may be used in severing its attachments. True these large fibrous polypi are not very numerous, still, if a man only operates once in a lifetime it will pay to use the ecraseur. I intended to mention the replacement of a chronically inverted and prolapsed uterus which I have just treated, but will defer it till another time. Also a hypertrophy of the clitoris in another patient, of which I will also defer the history.

EDITORIAL AND MISCELLANEOUS.

WORK FOR THE MEDICAL SOCIETIES.

It is capable of demonstration that something more can be done by the Medical Societies than to expel disorderlies and administer condign punishment to recusants. We question whether even the expulsion of Surgeon-General Hammond, as demanded by our Ohio friends, would fully accomplish the "mission" of the Medical profession.

It is doubted by the present writer whether any number of expulsions, suspensions or admonitions would, alone, bring the dignity of the profession up to the highest attainable point. The "casting out of devils" is scarcely all there is, even of the Christian religion—we do not know that that alone exhausts the offices of Medical Association.

Medicine in these later years, especially since Schleiden and Schwann pointed out the wonderful functions of the organic cell, has been disposed to become mainly microscopic in its observations. It is time that it began to "triangulate the great spaces." The civil war with its gigantic arrangements tends to enlarge the views of men—physicians and all. Mere cut-

ting off of arms and legs, extraction of bullets, ligation of arteries, and sewing up of wounds, has been proved but a very infinitesimal part of the duties even of the Army Surgeon. The physician still ranks the surgeon practically although not in popular éclat.

Fortunately at the present time we have at the head of the Medical Staff of the Army a man who is not only minute and accurate in observation, but also of large mental grasp and comprehensive view.

As a proof of this we only need to point to the vast hospital arrangements he has perfected—to the history of the diseases and wounds of the war he has inaugurated, and the magnificent collection of material for future generalization and discovery which he has commenced in the National Army Museum.

In our view the great want of the time is that physicians in civil practice, "wheresoever dispersed," should systematize their efforts towards the same end in civil observation which is now attempted in the military branch of the profession.

It were scarce exaggeration to say that the number of lives saved and amount of general health secured, as the result of the hygienic knowledge gained and sanitary principles impressed by the records of the war, will eventually more than counterbalance the lives lost and health destroyed by this same terrific struggle.

"There is a soul of goodness even in things evil." Systematic, rightly organized effort will accomplish almost miracles. Individuals can do but little—masses of determined men can do almost everything. "Extraordinary cases" which make up so large a proportion of the communications to our Medical journals are comparatively valueless. A solid structure of Medical science cannot be constructed from such cobwebs.

Medical men, in common with all scientific investigators at the present time, recognize the truth that inquiries with reference to physical laws, in order to give results of real magnitude, must take a wider and more comprehensive range than

can be attempted by any single, although it be a master, mind. As the great laws which govern the apparently eccentric phenomena of nature, such as the winds, the hurricanes, the fall of rains, earthquakes, and all other meteorological and terrestrial changes, can only be determined by widely extended observations and multitudinous observers, girdling and investing the entire planet, thus do we believe that disturbances of Plato's Microcosm, which occur apparently so disorderly, as to justify the old mythologies in attributing them to the wrath of offended deities, are nevertheless under the orderly control of laws, discoverable by general and continuous observations over all the continents, islands and seas.

All the appliances of art and science should be brought into requisition, and as the students of meteorology follow up the track of the winds, and vapors, and storms, laden with thermometers, barometers, hygrometers, *et id genus omne*—so should the Medical profession follow up the trail of disease.

Systematic, comprehensive action is what is needed. If the Medical profession throughout the United States were organized as are their brethren in the Army and Navy, and all cases treated, whether resulting in recovery or death, duly reported to some central bureau, there to be subjected to analysis and scientific examination, under all the light which modern science is capable of throwing upon them, there can be no doubt that in a very brief period Medicine as a science would take strides in advance unexampled in all its thousands of years' history.

What a light would shine all along the track of epidemics —endemics would disclose their strange secrets, and sporadic diseases would no longer surprise like arrows falling in the darkness.

Under our particular form of government it is, perhaps, impossible to compel the general collection of these details from which the body of an exact and generous science could be built up. Petty individual jealousies and the poisonous rancor of political parties would prevent in any event. But in this age

of the world what there is a necessity should be done, will find a way to have itself done.

The work must be done by individuals, the results gathered up by associations, legal or voluntary, or both. This is the true work of Medical Societies, town, county, state, national, continental or cosmopolitan. When they address themselves to this work, we pledge ourselves to join them all.

Just now we have little respect for the Trades-Unions, and punitive leagues, which too often take the name of medical societies—(*lucus a non lucendo*).

We shall return to this subject in an ensuing No. and point out what we believe to be feasible and practicable methods of operation. The time has come when facts and not merely the attenuated figments of fancy, or the mouldy and effete dogmas of past ages, are to be the elements of thought.

Return of Prof. Miller from Europe.—By a letter just received, we are informed that Prof. Miller, after a peculiarly pleasant and professionally profitable tour, has engaged his return passage by the Persia which leaves Liverpool on the 26th inst. He will, therefore, be present at the opening lectures of the College.

Rush Medical College.—With the last number of the *Journal* we sent to each of our subscribers the Twenty-first Annual Announcement of Rush Medical College. We take occasion here to say that the prospects of the College were never more flattering than at the present time. The Secretary informs us that the number of letters received, thus far, surpasses very largely those of any former year.

To our own knowledge, each member of the Faculty has made the most strenuous efforts to increase the facilities for communicating instruction, and to illustrate his teaching.

No resort has been, or will be, had to personal solicitation of students, underbidding, or other unworthy acts, *sometimes*, we regret to say, made use of by competing institutions. Rush

Medical College relies solely upon the character of its teaching, as demonstrated by the success of its graduates in both civil and military life.

The ambition of its Faculty is to keep in the front rank of *true* Medical progress, recognizing this as the highest medical conservatism. The determination is that the lectures given shall not be a mere rehash of the text books, but thoroughly brought up to the times, with an unmistakable vitality of their own.

The Pharmacopœia of the United States of America. Fourth Decennial Revision. By Authority of the National Convention for Revising the Pharmacopœia, held at Washington, A. D., 1860. *Philadelphia, J. B. Lippincott & Co.* 1863.

The usual decennial Convention for revising the Pharmacopœia met at Washington on Wednesday, May 2d, 1860, and a full delegation responded to their names. George B. Wood, M. D., of Pennsylvania, (*clarum et venerabile nomen,*) was appointed President. Jacob Bigelow, M. D., of Mass., and Edward Warren, M. D., of S. C., respectively first and second Vice Presidents; Thos. Miller, M. D., of D. C., Secretary, and Jno. C. Riley, M. D., Ass't Secretary.

As the result of the action of this Convention, numbering many of the most distinguished members of the profession in the Union, we have the book before us.

The Convention was governed by the same rules adopted by the Convention of 1850, and provided for a General Convention on the first Wednesday of May, 1870.

The revised Pharmacopœia is published in cheap form so as to ensure its general use by physicians and apothecaries.

We notice in the index that the quantity of the syllables is so marked that it will serve as a pronouncing vocabulary of the Materia Medica.

The changes found necessary in the Pharmacopœia from the progress of the Science, were quite numerous. Some additions have been made, many alterations in arrangement and details, and some articles have been displaced from the list.

Especial attention has been paid to mechanical methods, e. g. Percolation, Fineness of Powders, Weights and Measures, Solutions, &c. Several changes in nomenclature, involving both the Latin and English names, are to be noticed, and, where possible, we observe the singular number has been preferred to the plural. From such casual notice as we have been able to give, we believe that the Convention have well discharged the onerous duty imposed upon them.

The Reform School.—Under its latest *alias*, the Reform School has secured the kindly offices of one Follansbee, an ice peddler, who has cheerfully assumed the cast-off ornaments of Mr. Lind, late Commissioner of Sewerage, and turns up as a patron of the profession—provided they pay him for a part of his kitchen garden, and interest on a little building which he had prudently erected to help pay taxes. In default of payment of interest, it is understood that the building will revert to its original design, a saloon and day boarding house for cattle drovers and experts in the hog market. Its immediate vicinity to the immense railroad cattle yards, peculiarly adapts it to this purpose. Whilst occupied as a Medical College, its propinquity to that odoriferous part of our city suburbs, it is believed, will render it peculiarly convenient for the illustrative necessities of the Prof. of Comparative Anatomy, and the Prof. of Public (and Medical College) Hygiene. Meanwhile the family of the iceman will have full opportunity to inspect the dissecting room from their back windows, and "nose it behind the arras" of the rear parlor. Another advantage is that it joins walls with the district police station, which will facilitate the maintenance of order among the multitudes who will throng its spacious halls, and besides this the clubs of the police, if exercised as heretofore in that neighborhood, according to the records of our Courts, will go far to supply any hiatus in the *materiel* department.

Fibrin us Coagula in the Heart.—There is a great deal of scattered experience with regard to this interesting subject which should be collected. Dr. J. F. Miner, editor of the *Buffalo Journal*, in an interesting article entitled, "Intra-cardiac Blood Concretion," adduces two cases going to show the presence of these formations in death from chloroform. He makes these pertinent suggestions:

"It is perhaps an entirely new view of the dangers of chloroform to regard it as liable to produce death by inducing blood-clot during the periods of suspended respiration which so often occur under its influence; still, in connection with hæmorrhage, which is supposed also to favor this formation, it may have more influence than generally supposed. Whatever interrupts the circulation, or greatly enfeebles it, must certainly be regarded as more or less operative in producing such result."

In which connection we beg leave to call Dr. Miner's attention to our own remarks, under this head, on page 332 (July No.) of this volume. Any notable reduction of the heart's action directly favors formation of these coagula, and their subsequent danger. The therapeutic and prophylactic indications are obvious. Not only death but "complications," in the way of local disorders, are exceedingly liable to occur from the formation and detachment of these coagula into the current of the circulation. We repeat: "He who boasts that with Veratrum Viride, or Tartar Emetic, or other sedative, he has reduced the pulsation from a hundred, or more, below the normal standard, by no means convinces me that, unwittingly perhaps, he is not responsible for the sudden, or it may be slow and lingering, death which ensues." The attempt to control pulsation should, mainly, if not wholly, be through endeavor to remove the cause whatever that may be. The heart labors more rapidly in consequence of the demand made upon it, just as its muscularity increases when there is permanent obstruction. The hypertrophy is not disease—the more rapid stroke is not disease! This thing is worth looking after.

Tetanus.—A boy of seventeen placed a common Chinese cracker in a blow-gun and, having lighted the string, placed one end of the tube in his mouth so as to blow it at some object. Unfortunately the cracker exploded prematurely, and passing into the mouth perforated the body of the tongue, making a hole half an inch in diameter. The wound bled at first profusely, but this speedily subsided and was followed by severe inflammation. On the third day a piece of the cracker, which had remained undiscovered in the tongue, was discharged, and on the sixth day the tongue seemed rapidly healing. On the eighth day spasmodic movements were noticed about the muscles of the jaw, but these subsided mainly, after the operation of a cathartic and the use of anodynes. Careful examination disclosed no particular cause of irritation in the part. But on the tenth day general convulsions and persistent lock-jaw supervened. Chloroform readily controlled the convulsions, but on its suspension they speedily returned. He was kept under its influence fifteen hours, and then succumbed.

Army Diarrhœa.—Surgeon Geo. Winch, M. D., of the 29th Wisconsin Vol., commends in the diarrhœa now prevailing at Vicksburg: ℞. Pulv. Opii, Quiniæ Sulph., P. Gum Camph. Capsicii, *aa* gr. j; Sodæ BiCarb. gr. viij. M.

Lupus.—John Hastings, M. D., of the U. S. Marine Hospital at San Francisco, reports in the *Pacific M. & S. Journal* three cases of Lupus, strongly marked, cured by the assiduous local application of Stramonium. He applied a poultice of the bruised fresh leaves, and also the ointment prepared from the same. One case was cured in five, another in six, and the other in eight weeks. The diagnosis was confirmed by other medical gentlemen, and his description is clear and exact.—There was nothing peculiar in the internal treatment. The patients were males, respectively 30, 35 and 41 years of age. Dr. B. thinks this method likely to prove successful in many cases otherwise deemed incurable.

Bitters.—A correspondent wishes to ascertain the composition of a popular tonic and stomachic known as Swain's Bourbon Bitters. A note from the manufacturer informs us:

"The composition of Swain's Bourbon Bitters is as follows: Orange Peel, Camomile Flowers, Cardamom, Calamus, Ginseng, four ounces of each; Bourbon Whiskey, free from Fusel Oil, 40 Gallons."

This is a vast improvement on the heterogeneous mixtures in vile, half-distilled whiskey, or worse rum, generally palmed upon the bibulous or invalid portion of the public. The manufacturer exhibits a praiseworthy confidence in the character of the menstruum he employs by giving publicity to the formula. Most of the "bitters" in the market are but adroit combinations to disguise the physical properties of the worst possible alcoholic tinctures of Fusel Oil. Every physician should warn his patients against their use.

Variola.—The small pox has lately made terrible havoc on the Pacific coast, both north and south of San Francisco. The Victoria papers mention that its ravages have been excessive among the Indians of Vancouver's Island (over 1,000 died.) In the southern part of our State, at Los Angeles for instance, the epidemic has also prevailed extensively.—*Pacific Journal.*

Lotion for Indolent Ulcers.—The following lotion will be found serviceable in indolent ulcers of the legs, etc.: ℞. Calcis chloridi ʒ i; Pulv. Opii ʒ iss; Aquæ ℥ vi. Fiat lotio et cola. Sig. Keep the ulcers wet with it by means of lint.—*Id.*

Osteocopic Pains.—Periostitis, Nodes.—We have been in the habit of using for many years the abortive method advocated for buboes by Dr. Malapert, a French army surgeon, in cases of syphilitic osteocopic pains, periostitis and nodes affecting the tibia, ulna, clavicle, sternum and cranium.

A blister the size of a silver quarter of a dollar is applied over the painful bone, and a pledget of lint soaked in a solution of corrosive sublimate (gr. xv to xx for ℥ i of water) is placed over the previously denuded vesicated surface and allowed to remain in situ for an hour. The parts are afterwards

dressed with simple cerate. Considerable pain is caused by the caustic application, but the relief which follows is much more permanent than that attained by any other method we are acquainted with. The patients generally request of themselves a second or third application when necessary. In connection with the internal administration of iodide of potassium, we know of no superior treatment in these affections. In some obstinate cases, however, mercurial vapor baths twice a week may be added.—*Id.*

Liquors and Wines for Medicinal Use.—In these days when everything which can be adulterated, imitated and sophisticated is thus palmed off upon buyers, it becomes the purchaser to closely scrutinize the source of everything of a manufactured kind which is offered for sale. This remark is especially true with regard to the various preparations of alcohol. Unfortunately the price is no criterion of the quality, and few practitioners, or even druggists, have the conveniences, or the manual skill, requisite for satisfactory analysis. The consumer is at the mercy of the dealer.

Without any intention of writing an essay upon this hackneyed subject, we merely call attention to the point that without invidious comparisons Messrs. Hoyt, Pierce & Co., No. 147 S. Water st., in this city, are gentlemen whose representations with regard to their wines and spirits may be fully relied upon. They supply from their immense stock some 300 of the first class druggists of the North West. Our correspondents, who have from time to time written us for a reference in this matter, may take notice and govern themselves accordingly.

Noisy and Restless Insanity.—Hydrocyanic Acid.—A case is related in which the patient was noisy and restless, incessantly in motion, constantly shouting and screaming, and for long periods sleepless. She was completely delirious, and had not during the day a moment's repose. Four minims of dilute hydrocyanic acid were given every hour, in half an ounce of camphor mixture. Immediately after the first dose she became quiet and still, and slept at night. She continued better until the medicine was discontinued, when she at once relapsed to her old state. This may prove a valuable hint in some of these distressing and unmanageable cases.—*Dr. K. McLeod.*

Quinine.—Therapeutical Action.—Quinine is held to be a direct tonic on insufficient grounds, its real action is that of a sedative to the efferent nerves of the sympathetic, for the following reasons: That it requires a very much larger dose of quinine to produce its physiological effects in robust persons than in the debilitated; and in extreme asthenia, even small doses are poisonous. That it decreases the force and frequency of the pulse. When given in inflammatory fever, it restores the activity of the secretions. The following practical points will be found true. Quinine is only useful in dyspepsia, which results from suppression of the digestive secretions from febrile irritation. It should be used rather in sthenic than asthenic cases of inflammation. It is not suitable in diseases of the heart.—(Mr. R. Walker,) *Med. Times and Gazette, Feb.* 21,'63.

TO THE MEDICAL PROFESSION OF ILLINOIS.

The undersigned was at the late meeting of the Ill. State Medical Society appointed as Chairman of the committee on Drugs and Medicines.

All members of the Medical profession in the State of Illinois are hereby requested to report the result of their observations in regard to any new remedies, or new application of those long known, to the Chairman at Quincy, Dr. R. G. Laughlin of Hayworth, or Dr. F. R. Payne of Marshall.

Resp'y, F. K. BAILEY,
Ch'm'n Com. on Drugs and Medicines.

General Hospital, Quincy, Ill., Aug., 1863.

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ORIGINAL COMMUNICATIONS.

FOREIGN CORRESPONDENCE.

Bagneres de Luchon, August 24th, 1863.

My Dear Doctor:—This place is noted for its antiquity, it having been inhabited by the Romans; for the picturesque beauty of its location; situated in a circumscribed valley, surrounded by lofty mountains; so near the source of the Garonne as to be called with much propriety "the Heart of the Pyrenees." It is now one of the fashionable resorts of the French, especially, owing to the repute in which its waters are held for their therapeutic virtues.

France is probably more liberally supplied with mineral waters than any other portion of the continent; the springs being reckoned at many hundreds, issuing from the earth in various localities, the larger portion being met with in the Pyrenees.

The mineral elements vary greatly, not only in the waters of different localities, but also in the different springs of the same station, and the proportion of these elements differ likewise in the waters of each spring from those of all the others, no two being exactly alike in composition. The temperature

varies from very cold to very hot, ranging so high as 150° or 170° Far.

The waters of all these springs have been classified as follows: 1st. Sulphurous; 2nd. Ferruginous; 3d. Alkaline; 4th. Gaseous; 5th. Bromo-iodurets; 6th. Saline. Most of these waters have been carefully, and doubtless *accurately*, analyzed, but this cannot with confidence be affirmed of all, as the following piquant and instructive incident will illustrate:

The waters of Neyrac were reported by M. Mazade to be of great therapeutic value, as he asserted he had discovered that they were rich in valuable minerals, containing among others the following: Molybdenum, tungstein, cerium, cobalt, titinium, &c., &c., sufficient to render them of greater value than any other known mineral waters. The Academy of Medicine appointed a commission to verify the assertion; the committee reported favorably, and the Academy thereupon awarded a prize medal. Some time subsequently M. LeFort, a pharmaceutist of Paris, reported to the Academy that he had proved, by a rigid analysis, that these springs of Neyrac did not contain a single element claimed for them.

The maladies for which the waters of the Pyrenees are recommended include almost the entire list of diseases known to modern practice; as paralysis, neuralgia, amaurosis, phthisis, bronchitis, asthma, cardiac disease, the innumerable diseases of the digestive organs, the various diseases of the genito-urinary system. They are prescribed with great confidence in many uterine afflictions; the physicians at the various stations assert as proof of the value of the springs in this class of cases that engorgement of the neck of the uterus, ulceration, &c., are speedily cured; and their efficacy in prolapsus uteri is incontestible, as the patients very soon lay aside their pessaries after using the waters! all of which is (equivocally) confirmed by the patients themselves, for they frequently find the treatment so beneficial, that they return some six, eight or ten years in succession!! Can more proof be needed?

Educated physicians reside at all the stations; some one or more of whom are appointed by the Government as Inspectors, who direct what bath the patient shall take, the length of time he shall remain in, and all the minor particulars, the quantity of water he shall drink each day, &c. *Theoretically* it is necessary to have the prescription to enable the stranger to obtain a bath, but *practically*, not, for I find no difficulty at any time.

The bath is taken by invalids once a day, either of Sulphurous water, Ferruginous, or the two mixed in variable proportions to suit the individual case, according to the notion of the Inspector. The hot douche is considerably used, in local diseases; and a large quantity of the water is taken internally by each patient daily. The *douche* is applied to all cases of paraphlegia, and an intelligent gentleman from New York, with incipient amaurosis, is having the hot water applied in this manner to his eyes and temples. In response to an enquiry, he expressed some hope of receiving benefit from the treatment, as he already felt a little worse! It is given out by the physicians at the different stations, and believed by the patients that the symptoms of their particular case must be aggravated for a certain time; and then they may expect a sudden change for the better, which is to continue till they are restored! thus I suppose they remove disease by exciting an artificial crisis.

There can be no doubt, I think, that some diseases are alleviated and others cured by the means thus resorted to, as certain cutaneous diseases, chronic rheumatic affections, &c., when the waters are well chosen and judiciously applied. But that all the efficacy that is attributed to these springs, is to be generally experienced, is more than we have reason to expect.

It seems to be a general fashion for the physicians of Paris and other large towns in France, to send their chronic cases to some one or other of the numerous watering places during the "season," which extends from the 1st of July to September. At least one thing is gained by this practice, the attending

physician is relieved from the annoyance of a troublesome case, for a time.

Some idea of the extent to which the watering places of France are patronized may be obtained by taking Luchon as an example. The bathing establishment is a building 300 feet long, and about 100 feet wide, affording means for a large number of baths at the same time. The baths are prepared as early as 4 o'clock, A. M., and continue in requisition till late in the evening. The number of visitors here during the season will not vary far from six thousand.

An early walk from the Hotel to the bathing establishment is not without interest, from the contrasts that are presented, for we meet crowds who are wending their way to the "bath" or returning to their lodgings, and may see the thin-faced, sallow, sour-looking, confirmed valetudinarian, the wide-brimmed priest, the Parisian exquisite, stooping age, and beauties of the gentler sex, with a slight sprinkling of the English and American element, all pilgrims to the temple of Hygeia.

The first snow of the season fell on the night of the 20th inst., covering the tops of the nearest mountains to a considerable depth. M.

DISLOCATION OF THE HEAD OF THE RADIUS FORWARDS.

By F. M. WELLER, M. D., Evanston, Ill.

On the 30th July last, Miss G., came to me for treatment for an injury to the left elbow. She had, about two hours before, while engaged in some game of amusement with several companions, slipped and fallen, but could give no definite account of the manner of striking. There was a bruise over the left scapular region, and another at the elbow joint, outside and a little below the olecranon, directly over and behind the head of the radius in its normal position. The forearm was

flexed about 45 degrees from a straight line, the hand supinated.

On trial I found voluntary extension and flexion limited to an arc of 45 degrees, while forcible extension was impossible beyond 22½ degrees, and flexion 90; at these points the motion being suddenly checked as if by a lock. Voluntary pronation and supination were readily performed though to a limited extent; but the supine position was the least uncomfortable, and if the hand was left free, while the attention of the patient was diverted, was involuntarily assumed. The head of the radius could not be distinctly felt anywhere, but a slight depression, scarcely distinguishable to the eye, was perceptible to the touch when the head was sought for in place and in the middle third of the forearm the parallelism of the two bones could not be satisfactorily made out, the superior end of the radius not being as distinctly felt as in the other arm.

From these facts my diagnosis was, a dislocation of the head of the radius forwards beneath the tendons of the biceps, and lodged in a cavity of the humerus. I proceeded to the reduction without an anæsthetic, as follows: The patient was seated on a chair, her right hand grasping that of a friend; my assistant, (a gentleman wholly unacquainted with surgical operations,) standing behind the chair, and grasping the left arm so as to make counter extension as directed; I took a seat in front and at the left, with my right hand grasping the wrist. I held the hand so as to bring the bones parallel, and flexed the forearm within 22½ degrees of a right angle, then with my left hand placed beneath the fore arm at its upper third, so as to place my fingers on the posterior, and thumb on the anterior surface, I pressed the radius forward to free it from the humerus, and then separated it as far as possible from the ulna, and with my thumb pressed it outwards and backwards, at the same time extending the forearm with my right hand, while my assistant made counter extension by firmly holding the arm.

There was no click or snap during the operation, and not very much pain, but extension and flexion were at once perfectly restored. The head of the radius could be distinctly felt in its normal position. I placed the arm in a sling and directed frequent and free bathing with cold water about the injured joint; informed the young lady she must expect considerable stiffness of the joint for a long time, but cautioned her against any attempt at voluntary extension lest the bone might again be thrown out, before the wounded ligaments should have become perfectly healed. There was considerable swelling about the joint, and for thirty-six hours a good deal of pain, but the treatment was closely followed and the joint rapidly improved. At the time of writing (Sept. 1st.) all perceptible stiffness has disappeared.

I believe the mode of reduction adopted in this case differs from that usually directed in the surgical works, and I am not aware it has before been described or practiced; and that it may have advantages worthy of consideration.

WARM WATER DRESSINGS.

By MORTON MONROE EATON, M. D.,
Of Peoria, Illinois,

I do not now recollect of ever having seen an article advocating warm water dressings for wounds. Why this is, I am at a loss to know. I expect that many surgeons of talent and large experience will be disposed to think my views on the treatment of wounds as erroneous, still I am not disposed to be frightened from advocating what I have proven to be the truth. True, I am a young man; and for this reason feel like shrinking from the stand I now fearlessly take, of advocating the use of warm water dressings; which I know will be looked upon by some uncharitably; but hope that those who may chance to read this monograph may be induced to test the truth

of my assertions, knowing as some do that my opportunities for investigation, for a young man, have not been few, either in hospital, military or private practice, and have embraced all capital, as well as minor, operations.

In most of my first experience with wounds I used cold water dressings. In fact I was impressed with the idea that they were the best and absolutely necessary. I took notice, however, that the compresses that had been applied wet and cold, became very soon warm and were then a warm application. This called my attention to the benefit we derived from the cold in the first instance, which I must say, I could not see—and after watching cases closely, and reasoning from what is known of the reparative processes carried on by nature unaided, in the cure of simple injuries, noticing that every wound, if left to itself, will become more or less inflamed, the blood rushing to the surrounding tissues so far as vitality still exists, that in cases where we keep the parts very cold by the constant application of "cold water dressings," the healing process was often entirely arrested, and it often became necessary to apply some stimulating wash or liniment, to awaken more activity, and increase the circulation of blood, which we had been so eager to prevent at first, so as it was said, "to prevent inflammation." This showed plainly to my mind that a certain amount of warmth and redness, (often spoken of erroneously as an unhealthy condition,) was absolutely necessary to the most rapid healing of every wound—that keeping up the temperature of the parts to that of the natural standard in health, was desirable, and that as a rule, warmth was required rather than cold, and also that the exclusion of the atmospheric air is more essential than either; which, by the way, would of itself keep up the warmth in the parts quite efficiently in many cases. Therefore, I was convinced that the shock of a cold application to the wound from two to fifteen times a day, retarded the healing of the wounds, and often produced "inflammation," the very condition we professed to be guarding against.

The way I conceive this to be accomplished is this. The application of cold chills the parts and repels the blood that had filled the capillaries around the wound, puts a stop to the exudation of plastic material, and until the cold compress becomes warm the wound remains unchanged, and it takes sometimes an hour before the necessary warmth is re-established. Now again apply cold, and so on, at short intervals, and you may keep the wound from healing an indefinite period. Luckily it is not the practice to change cold dressings more than three or four times a day, as a rule, and from the time the compress becomes warm till it is again made cold reparation goes on.

Warm water dressings are especially applicable to gunshot wounds, as around these the tissues are deadened, often for the space of two or three inches. (This every army surgeon well knows.) So dead in fact, that if warmth is not soon applied the surrounding tissues slough off for a large space around. This is also the case with many cases of contused wounds from Railroad accidents, &c. In these cases, if warmth can be applied it is the best, as I have proven in numerous instances at the siege of Vicksburg, during the three weeks I was engaged with our unfortunate wounded there, and also in a number of instances which have occurred in this city during the last two years. True, it is not always practicable on the battle-field to apply warm water, then the next best thing should be done, apply cold water compress and direct that it shall not be changed or wet with cold water till the cloths are dry. By this means we have warmth most of the time. If inflammation of an angry nature should arise, a fomentation with hops is the best application. My own experience is that wounds will heal in about half the time with warm dressings that they will when applied cold and often renewed. I refer the reader to one of my operations reported in the Philadelphia *Med. and Sur. Reporter*, Vol. X, No. 3, in which I removed nearly the whole of the ilium in a severely comminuted state, the wound being extensively lacerated, with some of the fragments of

bone thrust among the bowels, even down deep in the pelvis, which I dressed (after the first few minutes) with warm water dressings exclusively. The wound healed rapidly from the first. My patient suffered no inflammation in the bowels or peritoneum, and but slightly in the bladder. He walked around freely without aid, with no lameness, in three weeks, and the wound, which was as large as my fist, was entirely healed in four weeks, and he has never had any trouble from it since. This case was one that emphatically called for cold applications, according to the generally accepted views of their action. The situation of the wound—its contused and lacerated character—the extensive comminution of bone, as well as the patient's habits, (he being a confirmed drunkard,) all rendered the case liable to take on inflammatory action, but nothing of the kind occurred. 'Tis true the season of the year makes some difference; in warm weather the temperature of the water should be lower than in cold. The true object of the dressing should be borne in mind, which should be to maintain an equal temperature as nearly as possible somewhat above the natural heat of the body, and all sudden shocks by the application of cold should be avoided.

SELECTED.

ON IDIOPATHIC ANÆMIA.

By S. O. HABERSHON, M. D., Lond., F. R. C. P.,

Senior Assistant-Physician to, and Lecturer on Materia Medica at, Guy's Hospital.

In some of those morbid conditions with which we are most familiar, it is as difficult to trace the source of the earlier symptoms as in others where the pathology is acknowledged to be more obscure. The symptoms of chlorosis are familiar, and it is a state recognized with great facility, and one of those in which right treatment soon manifests a most beneficial result;

but the source of the changed condition of the blood so constant in this disease is not known. The pallor and the sense of weakness, the cessation of menstruation or its non-commencement, are preceded by defective nutrition and by impaired or capricious appetite, and the changes in the blood itself appear to be secondary to the imperfect absorption and assimilation of food. The climacteric modifications in the condition of the pelvic viscera, accompanied by turgescence in the vascular supply of the ovaries, are simultaneous with other developmental changes, not only in the glandular organs, but in the whole nervous system; and a morbid condition of the sympathetic or vaso-motor nerve is coincident with, if not causative of, chlorisis. And although the visceral nerve supply may be modified by mental impressions, and amenorrhœa may be caused by nervous shock, more frequently chlorisis and amenorrhœa are slowly induced by defective nutrition.

As to this state of chlorisis, there are degrees of severity; in some it is a transient malady; in others it is very protracted, and, as to its result, of serious import. When chlorisis becomes permanent, other degenerative changes take place; either the deposition of strumous product in the abdomen, or in the lungs, or in the brain follows, or simple fatty degeneration results, or both states may be conjoined.

The following case of anæmia was closely allied to some of the instances of protracted chlorisis which occasionally occur. Several such cases have been recorded during the last few years and theories have been put forth as to their true character; but, whilst they naturally are divided according to the organ especially diseased, and which has apparently led to a modified state of blood, there are some instances in which as yet no source of disease can be traced, and in our ignorance we are compelled to use the term "idiopathic anæmia." Thus an anæmic condition has been attributed—1st, to chronic diseases of a suppurating character, as some diseases of the spine, or to anything constituting a constant exhausting drain upon the system, hyper-lactation; 2nd, to the effect of acute disease, as rheumatic fever; 3d, to diseases of the spleen, as in leuco-cythæmia; 4th, to general disease of the lymphatic glands; 5th, to strumous cachexia; 6th, to miasmatic poisoning, ague, with which enlargement of the spleen is also associated; 7th, to disease of the supra-renal capsules; 8th, to actual loss of blood —internal or external hæmorrhage; 9th, to the effect of mercurialization; 10th, to the excessive use of alkalies, or the drinking of large quantities of water; 11th, to cancerous ca-

chexia; 12th, to chronic ulceration of the stomach, and dyspepsia; 13th, to some diseases of the kidneys, as abluminuria; 14th, to insufficient light, with improper food and impure air; 15th, to chlorosis. But in some cases, although closely allied to chlorotic mal-nutrition, no source of disease can be detected. The patient's strength fails, pallor of the countenance ensues, and atrophy slowly advances, till the exhaustion becomes extreme. The instance before us was of this class, and the fatal degeneration of the heart and serous effusion into the pericardium were merely indications of advanced mal-nutrition, and they became the immediate cause of death.

The causes of anæmia which we have enumerated may, however, be divided into three classes—1st. Causes interfering with the proper reformation or the renewal of the blood, as diseased glands, mesenteric or lymphatic, &c. 2d. Causes operating directly upon the blood itself, as the effect of physical agents, mercury, water, alkalies; so also the actual loss of blood in the different forms of hæmorrhage; here also we may mention albuminuria, and perhaps ague poison. 3d. Excessive waste, the demand upon the nutritive power of the system being greater than the compensative supply; thus although the blood may be reformed properly, that renewal is not sufficient to compensate for the constant loss which takes place from exhaustive discharges.

Where shall we place struma and chlorosis? If we attribute these diseases to imperfect assimilation of food, and to a primary defect in the digestive organs, are we correct in placing them in the first category? Again, to what extent does the nervous system, in its sympathetic or vaso-motor nerve, influence nutritive changes? Fright and mental distress interfere with the digestion and absorption of food by means of the connexion between the cerebro-spinal and the sympathetic nerves. But, may this retarding influence be permanent; and may we not correctly attribute some forms of anæmia to diminished power in the sympathetic centres rather than to the organs which they influence? These questions naturally force themselves upon the mind in the consideration of a case such as the following, and although we would seek to be on our guard lest we hide our ignorance under a name, still something is gained if we can ascertain the direction of the origin of the disease.

Idiopathic anæmia, commencing with gastric irritation; fatty degeneration of the heart.—Eliza W——, aged forty, was admitted into Guy's Hospital on September 25th, 1861, under

Dr. Habershon's care. She was a single woman, who had resided at Rotherhithe, and obtained her livelihood by her needle. For six years menstruation had ceased, and during the latter four years she had felt stronger. Of delicate general health, and of spare and anæmic appearance, she had for many years suffered from occasional attacks of vomiting; but for eight months these attacks of vomiting had been of almost daily occurrence, with an occasional omission of a week. The vomiting sometimes came on directly after food; at other times there was an interval of many hours. There was pain down the sternum to the scrobiculus cordis, of an aching character, and increased by food and by vomiting; a burning sensation, amounting to pain, in the shoulders and back, troubled her; and also a "dragging pain" in the joints. The bowels were sometimes much relaxed, at other times confined for several days. There had been no hæmatemesis, but she thought that a little blood had been ejected three or four months before admission. She was blanched and emaciated; the chest was normal, and she had not any cough; the abdomen was contracted, and there was tenderness at the scrobiculus cordis,but no dullness, and no pain in the back; the tongue was clean; the pulse compressible; the feet not swollen; the urine was rendered slightly turbid by heat, but cleared by nitric acid, and there was slight mucous deposit. Ordered, compound iron pill, two grains; creosote, half a minim; extract of henbane, two grains; three times a day. To take chop and four ounces of sherry wine; unable to take milk or beef tea.

September 28th.—Complained much of sickness and pain, and was ordered nitrate of bismuth, ten grains; carbonate of soda, ten grains; chloric ether, ten minims, in mucilage mixture.

On October 2nd, she complained of the medicine burning her throat. The roof of the mouth was granular, but nothing could be seen in her throat. She was very anæmic, but suffered less from vomiting. The medicine was ordered to be diluted; but as she still complained much of it, it was changed for bismuth, soda and conium. The offensive smell became then the great objection.

Oct. 19th.—Lime water with milk was ordered, and half an ounce of quinine mixture (one grain) given three times a day. On Dec. 3d, Dr. Barlow prescribed one-twelfth of a grain of strychnia with dilute phosphoric acid three times a day. This medicine did not agree; a sense of exhaustion, with a severe pain in the abdomen, came on. The pain became so severe,

and the prostration so suddenly extreme, that it was doubted whether perforation had taken place. The pulse at the wrist was scarcely perceptible. A poppy poultice was applied to the abdomen, and ten minims of the solution of hydro-chlorate of morphia given in camphor mixture. On January 1st, 1862, she had greatly rallied, and there had been no return of pain. She was able to take food, such as jelly, &c., and sometimes a chop. The bowels were constipated. She was still very much blanched, but less distressed, and her countenance less haggard. On the 7th she had improved in health; and her appetite had so increased that she quite enjoyed her food. On the 15th she was able to sit up, and she slowly improved so as to leave the hospital.

She was re-admitted in the autumn (October 4th) of 1862, blanched, emaciated and extremely feeble. No evidence of disease of the stomach could be satisfactorily found; no pain after food; no vomiting; no tumor; no distension of the abdomen; no cough. There was disinclination, amounting to inability, to take food; there was no albumen nor sugar in the urine; the blood was normal as to microscopical appearance; the pulse feeble, but regular. Steel wine and quinine were given once a day, and afterwards pepsine; the latter produced vomiting. She gradually, however, sank and died Dec. 4th. Nutrient enemata were attempted, but they produced so much distress that they could not be repeated.

Dr. Wilkes' report of the post-mortem examination.—Inspection twenty hours after death: the body was remarkably white. The brain was pale and watery; there was increased serum in the surface, and in the ventricles. Pleura: There was clear serum to the amount of several ounces in the chest. The lungs were very pale and watery. Heart: There were two or three ounces of serum in the pericardium; the heart was rather small, and there was an excess of fat seen on the front aspect; the valves were healthy; the excess of fat on the surface was seen to encroach on the muscular fibre, and to penetrate even to the interior, the walls being pale and soft. In the interior of the heart, especially in the left ventricle, well-marked fatty degeneration was seen; white zigzag striæ were present on the muscular columns and on other parts; the tissue was soft (the microscope confirmed this appearance of degeneration of the tissue); the coronary arteries were healthy. There was serum on the peritoneum; the stomach and liver were apparently quite healthy. The spleen was healthy, as were the kidneys and the supra-renal capsules.

The poor woman had resided in a damp and unhealthy locality, and, depending upon her needle for her livelihood, she had only obtained a scanty supply of the ordinary necessaries of life. The weakness of her state manifested itself first in the cessation of the menses at thirty-four years of age, and the catamenia did not again appear; her health, however, subsequently improved. The first marked symptom of disease consisted in gastric irritation, as shown by occasional attacks of vomiting, and these attacks took place at irregular intervals for several years; but for eight months the vomiting had become very severe, sometimes taking place immediately after the food had reached the stomach, and sometimes several hours elapsed; pain at the scrobiculus cordis and diarrhœa followed. She never suffered from hæmatemesis; and there was no evidence of organic disease of the chest, nor in the lymphatic glands, nor in the spleen, kidneys, uterus, liver, and supra-renal capsules; no trace of suppuration nor of disease of the spine could be found. Whilst in this prostrate condition, nine months before death, intense pain in the abdomen, with collapse, came on, resembling perforation of the intestine; but with rest and morphia she gradually rallied, and even improved so much as to be able to take animal food with an appetite. The symptoms passed off, and she left the hospital in improved health. After several months she was re-admitted with the same symptoms, but even more prostrate than at first. She was unable to take food, and the power of the heart and the force of the pulse gradually declined. Mineral acids, steel, quinine, stimulants, pepsine, nutrient diet, and enemata were all tried, and were either at once or after a short time set aside as intolerable by the patient. Life very slowly faded away, and death seemed to take place from mere atrophy.

The post-mortem inspection only revealed the effects of the atrophy, but did not indicate its cause. There was degeneration of the heart, and slight passive effusion into the pericardium as well as into the pleura and peritoneum; but no other organic change could be found. The blood had been examined microscopically during life, but without manifesting any excess of white corpuscles; and after death, no glandular disease could be traced.

Where, then, are we to look for the cause of this complaint, and what is its nature? The first symptoms indicate gastric irritation, and an interference with digestion; there was a deficiency in the quantity of nutriment absorbed, and hence atrophy. After death, however, no trace of organic change could

be found in the stomach; it was reported as being in a healthy state—there was neither thickening nor cicatrix. It is to the nervous supply of the stomach that we must direct our attention; it was there that the fault originally commenced, and in that direction must we seek for the origin of the disease; and to combat that defective condition must be the aim of our treatment. In closely watching the gradual termination of these cases, we find that the lamp of life really dies out. The state has been called by some practitioners one of chronic syncope, for the patient is constantly closely bordering upon fainting; and the attempt to get out of bed in the extreme prostration may be followed by sudden death. There is diminished power in the heart, absence of the proper stimulus of healthy blood, and exhausted nervous power; in fact, it is a state of anæmia with one of asthenia.

In the treatment of these cases many patients, at an early stage, completely recover under the influence of bracing air, nutrient and stimulating diet, aided by the preparations of iron. The power of healthy assimilation is gradually restored, and the functions of the mind, as well as of the body, are performed in a vigorous manner; the red corpuscles of the blood increase in quantity, and with returning color we find restoration of health. Sometimes there is great advantage in combining quinine with the steel, and, if necessary, aloetic purgatives, or the extract of nux vomica, in small doses, may be added. Thus half a grain of the sulphate of iron, with one grain of quinine, one grain of the aloetic pills, and one grain of extract of henbane, taken twice a day after a meal, often agree exceedingly well; and better than when administered in a fluid state. In some instances, even small doses of the nux vomica have been followed by faintness, and I generally omit it altogether; and I have witnessed the same effect after very minute doses of strychnia.

Irritability of the stomach is a common symptom, and with difficulty checked; ice, bismuth, with soda, and chloric ether, minute doses of morphia and hydrocyanic acid, lime-water, the effervescent salines, carbonic acid, alone or in combination, may be used. Occasionally counter irritation at the serobiculus cordis gives some relief, but I am not partial to it as a remedy; nor have I found the same amount of benefit from the preparations of silver and creosote as in some other states of gastric irritation. Afterwards, dilute hydrochloric acid, with vegetable infusions, may be tried, not only as a tonic, but to facilitate the solution of food.

As diet, milk, with lime-water in small quantities, and often repeated, or mutton broth; arrow root, or other farinaceous food, may be also given, made with milk or with water; and, if there be great prostration, stimulants may be conjoined.—Nutrient enemata are certainly beneficial in many instances. Electricity, which in some cases of chlorosis has been followed by a speedy cure, is not, apparently, of any service in this more severe malady. Nor have I witnessed any benefit from pepsine. In the excessive anæmia and prostration which exist in such an instance as we have detailed, no remedy, however, is of any permanent benefit, and the patient very gradually, but with steady course, loses strength and power till life ceases from simple exhaustion. The stomach becomes, apparently, incapable of tolerating the presence of food, even when the patient can be persuaded to swallow it; so that the solution and absorption of it in sufficient quantity to sustain life are rendered almost impossible; and, in proportion as the nervous exhaustion increases, the morbid state of the stomach is also aggravated; the one reacts upon the other, each increasing the other's defect. In the exhaustion from over lactation, or from extreme mental distress, the same gastric inefficiency exists; there is the same complete loss of appetite, disinclination to take food, and, if swallowed, it will remain undissolved, and vomiting or faintness will follow; in the latter cases, however, the nervous exhaustion may be taken away, either by the removal of the cause of depression, or by the soothing effect of passing time and right treatment. Not so in the former; in them the nerve-strength and gastric power decline, *pari passu*, till they cease together.

Several other cases of anæmia are appended, different in kind, but each possessing great individual interest.

Anœmia; diabetes insipidus; roseola; irritability of stomach; relief by Turkish bath.—Henry T——, aged twenty-five, was admitted into Guy's Hospital, under my care, April 2nd, 1862. He was a spare man, married, and by trade a bricklayer; and some years ago he had had syphilis. Ten weeks before admission he had pain in his head, and his sight became confused, so that he was scarcely able to walk about; but the sight has been partially restored. Five weeks later he had thirst, and three weeks later still began to pass large quantities of urine. On admission, he was passing about a gallon of urine in the twenty-four hours; his skin was very dry and chippy; and his face had a red, patchy, and somewhat scaly appearance, as if he was convalescent from scarlet fever or

erysipelas; there had, however, been no such illness. There was no sweetness of the breath, nor sponginess of the gums; the urine was pale and clear, and free from albumen and sugar. His appetite was very poor; the stomach irritable; the tongue clean; pulse very compressible. There was no evidence of any disease of the lungs or heart; the abdomen was supple and free from pain. He was ordered quinine.

On the 5th, the stomach was very irritable—food almost at once rejected; and finding that some years ago he had had syphilis, effervescing mixture with iodide of potassium was prescribed. Meat diet, with bread and vegetables was allowed.

On the 9th, the redness of the face was not general, but there were red and circular patches, slightly raised, and dusky in color; the redness disappeared on pressure, and the erythematous patches were almost continuous. The skin was roughened; occasionally, however, the skin became pale. The pulse was very compressible; the stomach still irritable; and the urine large in quantity (about ten pints), sp. gr. 1005. Soda-water and brandy were ordered.

16th.—There was less vomiting; the face was still in the same state; the skin very dry; the urine as before; but the patient said that he felt better.

On the 26th there was less prostration, but the general symptoms were the same.

On May 4th, violent sickness came on for several hours.

On the 10th he had a Turkish bath, which produced profuse perspiration and suppleness of the skin; the pulse became firmer, and his symptoms were all relieved. On the following day he continued better, and the face had lost its red and patchy appearance; and on the 12th he left the hospital greatly relieved. The urine, however, was still in considerable excess (six to eight pints), and of the same general character.

Remarks.—This case was an obscure one. Irritability of stomach, with polydipsia, and a dry desquamative condition of the skin, were the principal symptoms. The prostration was extreme; but saline effervescing medicine with iodide of potassium, and stimulants, afforded partial relief. The action of a Turkish bath in producing powerful diaphoresis certainly afforded most efficient help in the treatment of this patient, and greatly conduced to his recovery.

Anæmia; bronzed skin; relieved; disease of the supra-renal capsules (?); periostitis.—Eliza F——, aged forty-one, was admitted under my care into Guy's Hospital, April 9th, 1862.—She was a married woman, who had resided at the Lower-road

near the Surrey-canal. Five years previously she had "bilious fever," when she had vomiting, but no purging, and was confined to her bed for six weeks. Three years before admission she vomited blood, but did not reject food. Till two years menstruation had been profuse; it then ceased altogether.—There had been no return of vomiting; but the prostration of strength had become extreme. For three weeks she had pain in the legs, shoulders, and back; pain came on across the chest; there was no vomiting, and the bowels were regular. On admission there was slight cough, and the pulse was very feeble and compressible. She was short in stature, the countenance was bronzed, and she so weak that she was scarcely able to stand. There was no evidence of disease of the heart or lungs; but slight tenderness at the serobiculus cordis on pressure.—She was ordered three ounces of brandy, and ten grains of the ammonio-citrate of iron was given in julep of ammonia three times a day, and nourishing diet allowed. The brandy was afterwards changed to wine. Her strength slowly returned; but on April 29th she complained of great pain in the left side. The periosteum was thickened and very tender, and the pain was more severe at night. There was melasma ab igne on the legs. The pulse was rather stronger. Three grains of iodide of potassium was given with the ammonia instead of the iron. The pain in the legs gradually ceased, the thickening disappeared, the color was less deep, and her strength returned, so that she was able to get about the wards and go into the hospital grounds. On May 27th she was desirous of going home, and left the hospital greatly relieved.

Remarks.—This patient had the bronzed complexion, with excessive prostration, and with previous irritability of the stomach; but the occurrence of periostitis, and the amount of relief afforded, not only to the pain and periosteal thickening but to the prostration and deep sallowness of the complexion, rendered it doubtful whether the disease did not principally consist in syphilitic cachexia.

Anæmia following jaundice after gall-stone; purpurea hæmorrhagica; relieved.—Mary S——, aged forty-five, was admitted into Guy's Hospital under my care April 22nd, 1862. She had been a widow for two years, and resided at Camden-town. Menstruation had ceased for six months. In December, 1861, after great mental anxiety, sudden pain came on across the abdomen, vomiting, and in a few days, jaundice.—These symptoms referred to gall-stone; and although the jaundice had almost gone when she came under my care, she had

continued weak and prostrate. Seven weeks before admission pain in the back and at the stomach came on; she was then anæmic, slightly sallow and emaciated; she suffered from headache, and from pain at the region of the pylorus, brought on especially by solid food; food of that kind brought on severe pain, or was rejected; the bowels were constipated, and the evacuations pale; the tongue was slightly furred at the back; the heart was normal, but its action feeble; there was no disease of the chest, but the right side was more coarse than on the left; the abdomen was contracted; dullness in the right hypochondriac region extended nearly to the umbilicus, and the surface of the enlarged liver did not feel perfectly smooth; there were some enlarged glands in the neck on the right side, and in the right axilla; the urine was clear, and free from both bile and albumen. Dilute hydrochloric acid, with compound infusion of senna and of orange peel, being found to agree with the stomach, were substituted for the effervescing mixture; and, as an alternative aperient, one grain of podophyllin with two grains of extract of henbane, every morning. She seemed to improve in health, but on May 24th she stated that on the previous day dark spots suddenly appeared on the skin, with bleeding from the gums; a slight tingling sensation was produced in the skin; and while she watched the part spots of a greenish discoloration, equal in size to a half crown, gradually formed; these were on the arms and legs. Other small petechial spots were observed. There was semi-coagulated blood adhering to the gums and tongue, and about half a pint had been expectorated; the tongue was otherwise clean. The pulse was sharp and rather irritable; the bowels open; no blood in the motions nor in the urine; no headache; patient tolerably cheerful. She was ordered ice in the mouth, eight ounces of wine, and half a drachm of tincture of iron with two grains of quinine in water three times a day.

On May 26th the bleeding continued, but in a less degree; and there were numerous spots on the arms, &c.

27th.—Bleeding less, but the patient was prostrated. Greens and two ounces of brandy with ten ounces of wine, were given.

31st.—The bleeding returned, and she had a waxed countenance.

June 4th.—She was much blanched. To continue the same treatment.

7th.—Bleeding ceased for several days. Tongue clean; spots disappearing; pulse hæmorrhagic; countenance very pallid.

14th.—No return of bleeding; color returning. She feels stronger.

July 8th.—Steadily gaining strength. The symptoms greatly relieved, and no trace of the purpura.

Remarks.—The onset of this affection resembled that of gall-stone; but the continued enlargement of the liver, the pain at the pyloric region, and especially the enlargement of the glands in the neck and axilla, led me to fear organic disease. The sudden occurrence of purpura hæmorrhagica was remarkable; in half an hour bleeding into the skin and from the gums became very severe. She described the onset of the echymosis in the skin as being preceded by a smarting, pricking pain, and whilst she watched, discoloration took place.—The amount of blood lost was very great, and the patient became completely blanched. Stimulants were given very freely and tincture of iron with quinine administered every few hours. The symptoms slowly subsided, and the patient left the hospital anæmic, but her dyspeptic symptoms were greatly relieved. After a few months jaundice again came on, and she applied as an out-patient. The symptoms have again subsided, but the return of enlargement of the glands renewed the original suspicion of organic disease.—*London Lancet.*

GREAT SYMPATHETIC NERVE.

From a recent number of the *Journal de la Physiologie de l'Homme et des Animaux*, published by Brown-Sequard, we extract the following, as a resume of the results of certain vivisections lately made by Claude Bernard, for the purpose of determining the office of the Sympathetic Nerve. It has been determined, beyond all doubt, by Bernard, that this nerve exercises an influence upon the calibre of blood-vessels, as well as upon the temperature of the parts to which it is distributed; also, that the Sympathetic Nerve exercises these functions wholly independent of the cerebro-spinal system.

"In conclusion," says he, "to make a summary of the results of my experiments upon this nerve,—they demonstrated that the nerves which are sent to the vessels, (and which he terms vascular nerves,) and those which preside over calorification, are topographically and physiologically independent from those which are known as the muscular, (that is, the common motor nerves.) From this we derive this general proposition, that the vascular circulatory apparatus possesses a spe-

cial vaso-motor system, and that the movement of the blood can be accelerated or retarded in the vessels, either locally or generally, without any participation of the cerebro-spinal motor nervous system. The local and functional congestions which occur in certain organs at certain periods, are examples of circulatory movements in a physiological state. In fevers, we have presented to us another striking example, occurring in a pathological state.

"I am not able to close this communication without adding certain reflections relative to the relations which my experiments hold in reference to the ideas which generally obtain among physiologists in respect to the great Sympathetic Nerve. It should be mentioned that, during a long period, physiologists have discussed, and are still discussing, the nature of this nerve, and it has been a question whether the sympathetic system constitutes an apparatus independent of the cerebro-spinal, or whether it is dependent upon, and sustained by the latter system;—and certain physiologists seem to think that the solution of this question would be equivalent to solving the problem of this nerve. I am, then, perhaps, asked, what I deduce from my experiments in this respect;—whether I conclude from them that the vascular branches of the Sympathetic Nerve arise from the spinal marrow, or whether they are independent of it? I reply, that I believe that no person, to-day, is capable of answering that query, at least, in an absolute manner. I know very well, that, in cutting the roots of the nerves whence spring the sciatic, or those of the brachial plexus, without obtaining any calorific phenomena in the limbs, this by no means proves that the vascular and calorific branches found in the Sympathetic do not arise at some point higher or lower than where the section was made. In certain cases, it seemed that I procured calorific phenomena in the hind-leg of animals, after acting upon the marrow at some higher point; also, I have witnessed an augmentation of temperature occur in the fore-leg and ear, after cutting the sympathetic cord at a point on a level with the third and fourth dorsal pair of nerves, and this occurred without any action upon the pupil;—all this appears to prove that the calorific effects are distinct from the action upon the pupil and eye-ball. (For after section of the Sympathetic in the upper portion of the body, Petit found that there ensued contractions of the pupil, and sinking of the eye into its orbit. —*Translator.*) In that portion of the marrow which is comprised between the brachial and lumbar plexuses, as well as in other portions of the medulla spinalis, there could exist, with-

out doubt, centres which act, either directly or indirectly, by reflex action, so as to produce the vascular and calorific effects of the great Sympathetic. * * In my opinion, the vascular and calorific nerves are motor nerves; before commingling with the nerves of mixed function, these nerves constantly emanate from the ganglia of the Sympathetic, in which points they may be considered united together as in a plexus."

Hence, then, according to the opinion of Claude Bernard, one of the great functions of the Sympathetic is to serve as an excito-motor of the blood-vessels; likewise, either directly or indirectly, it influences the heat of the part to which it is distributed.—*San Francisco Med. Press.*

STIMULANTS IN THE ARMY.

[To the Editor of the American Medical Times.]

Vicksburg, August 1st, 1863.

Sir:—In your number of July 11th, I was gratified to read a discussion on the subject of the use of alcoholic stimulants, in the treatment of pulmonary diseases. Also an editorial by yourself, headed "An Indolent Profession."

The subject first mentioned, as you justly remark in another place, is of great importance in its relation to the habits of the people. Unfortunately the discussion of this and similar questions is sure to be influenced by the habits and preconceived notions of the disputants. Dr. Davis, of Chicago, whose advocacy of total abstinence is well known to the public and to the profession, shows by statistics that tuberculosis is very common among those who have used alcoholic drinks as a beverage or a medicine; while not one of Dr. Flint's cases, sixty in number, acquired a craving for stimulants. Dr. Parker cautions us strongly against the practice of whiskey-drinking, and Drs. Blakeman and Post give cases in which the habit of intemperance was formed from the prescription of a physician. These habits were followed by an ignominious death and a dishonored grave. I suppose that any physician in general practice, who did not use these stimulants himself as a beverage, would give the same testimony. I am sorry to hear you say that habits of intemperance are increasing rapidly amongst the people. During the last two years I have lived pretty much amongst the camps, and know but little of the

condition of society. My life in the army has, however, given me an opportunity of making observations on the use, medical and general, of these stimulants among soldiers.

The appetite for stimulants in this department is certainly very strong, and is due, perhaps, first, to the effects of the intense and prolonged heat, producing great prostration; second to want of variety in food; and, third, to the active agency of the malaria so common in this district. The intense heat calls for stimulants; the uniform rations, generally very salt, call for drinks, as does the free and general perspiration induced by the heat. The continued cause of poison by malaria, producing diarrhœas, gastralgias, mental, moral, and physical depression, seems to call imperatively for alcoholic stimulants. And what are we to do? The remedy is often at hand, and the relief, though temporary, is immediate. With the idea of a malarial influence entering the system through the digestive organs, I early adopted the plan of using freely vegetable acids particularly citric, as a beverage. I found that the water which I drank was corrected by it, the gastralgia and sense of prostration relieved, while the frequent recurring diarrhœas were often prevented or cured. In charge of a large hospital at Grand Gulf, I recommended this practice to my medical staff, and they adopted it both individually and in their practice.—Without it the water we drank would produce diarrhœa in less than an hour. Surgeon Robarts, of the hospital-boat belonging to the marine fleet, has adopted the practice, and has his officers and patients freely supplied with lemonade made of citric acid, sugar and water. Several surgeons in the field have informed me that they do the same thing in their regimental hospitals, and all with good effect. It is very common amongst the officers of the army, especially in the Southern Department, to carry with them a supply of what they call "good old Bourbon," which they imbibe statedly in quantities proportioned to the sensibilities of the stomach, as a prophylactic. They often, in addition to this carry with them a quantity of morphia or pulverized opium, which is to be used as a *dernier resort*. Now, I have found that whenever an officer with these habits contracts diarrhœa or fever, it is ten times more difficult to stop it and cure him than it is to cure the same disease in one that does not use that prophylactic. The truth is, the evil in these prophylactics, to wit, the subsequent prostration of the stomach and other digestive organs, quite overbalances the temporary good obtained. To secure good health, and prevent the accession of disease, good and contin-

uous digestion is necessary. This is sure to be interrupted by the aforesaid prophylactics. In my opinion the only way to prevent such prostration following the use of these stimulants is, to take them in small quantities, and always accompanied with some article of nutrition, such as milk, soup, bread, or crackers, and cheese, or something of the kind. In that case the stimulant acts as a digestive, and the prostration which would have followed its use is prevented by the absorption of the nutritious matter. But I have strong doubt of the propriety of using alcoholic stimulants in any case as prophylactics. The remedy, in its effects, too often becomes worse than the disease.

Alcoholic Stimulants as Medicines.—I claim the right to use any article I can find in the animal, vegetable or mineral kingdom, as a medicinal agent; but I would use these remedies with great caution, and always with the same restrictions that I administer narcotics and cerebral stimulants generally. I have accomplished great good by the judicious use of alcoholic stimulants in the hospital practice of the army. Convalescence from typhoid fever is often best treated by the use of these stimulants, and debility from various other causes may be removed according to the principles above suggested. The fact should always be kept clearly in mind that a stimulant is not tonic, but exhausting, unless followed by an improvement in the digestive organs. The physician at the same time is bound to respect the organization of his patient, and not (if possible) in curing him of one disease, lay the foundation of another and worse one.

Finally, I am surprised to hear you speak of an "indolent profession," and complain that medical men do not contribute to the literature of their profession. I supposed that your columns were continually supplied with original articles, both from the army and from private practice. I seldom see a medical journal, and cannot judge for myself. I know there are large numbers of well educated literary men in the army who no doubt, daily record what they see and practice in camp and hospital. These things will be published "when this cruel war is over." The Surgeon-General has taken measures, which will, no doubt, be effective, to secure an official record of the Medical Department of the Army in good form and due time. Gentlemen are, probably, occupied with these compositions, and contribute less to the journals than they otherwise would. In my opinion, a good record of military surgery is all that has been wanted to bring the medical literature of this coun-

try up to the European standard. This is now being done, and henceforth our medical, like our monetary resources, will not depend upon foreign speculators.

Yours, etc.,

JAMES BRYAN, *Surg. U. S. V.*
Department of the Tennessee.

MEDICATED CIGARETTES.

By W. E. BOWMAN, M. D.

Cigarettes may be made of almost any variety of thick paper, but that kind should be selected that on burning yields a smoke most easily inhaled. I have always employed the heavy paper used for copy book covers (olive pressings); thick blotting paper, however, makes a good cigarette, but the regular filtering paper does not answer, as its smoke is dense and suffocating.

First, cut the paper into strips about seven inches long and an inch and a quarter wide, and next ascertain how much fluid it requires to saturate twenty-five of these pieces. This is readily done by soaking them in an exactly measured ounce of water, when on withdrawal it will be found that about five fluid drachms of the liquid has been imbibed; this will give the key to the strength you are to make the solutions.

Next saturate the slips with the remedy, and when nearly dry gum or paste one border of each, and roll it around a pencil spirally, afterwards withdraw the pencil, and the cigarette is made.—*Can. Lan.*

Arsenical Cigarettes.—Boil 25 grains of arsenious acid (the lump broken up is purest) in a Florence flask, with four ounces of water, down to the quantity required to saturate 100 slips of paper previous to rolling. They will then contain a quarter of a grain each. If you have not the usual apparatus, hang the flask above some live coals by means of a wire.

Mercurial Cigarettes.—Dissolve three drachms of red precipitate in three drachms of nitric acid, and add enough water to make up the quantity required to saturate 100 slips of paper. They will contain about three grains of the nitrate of mercury.

Nitre Cigarettes.—Dip the paper in a saturated solution of the nitrate of potash before rolling.

Balsamic Cigarettes are made by giving the dried nitre cigarettes a coating of tincture of benzoin.

In the *British Medical Journal*, Dr. Nevins, of the Royal Infirmary School of Medicine, Liverpool, speaks highly of these cigarettes in a number of cases.

Aphonia.—A patient who could not speak above a whisper for over a year, probably due to a thickened condition of the chordæ vocales, as she had no pain or constitutional symptoms, used the mercurial cigarettes for a month, and perfectly recovered.

Offensive Discharges from the Nostrils, with a sense of uneasiness in the frontal sinuse, was quite cured in about a month with the mercurial cigarettes. The patient held his nose after taking a mouthful of the smoke, and then forced it into his nostrils in the manner practiced by accomplished smokers.

Polypus in the Nose.—A patient who had been twice operated upon for polypus, is now able to keep the disposition to form fresh polypi in check, by smoking the mercurial cigarette in the same manner, when he feels that uneasiness which warns him of the danger of its recurrence.

Deafness.—When dependent upon an obstructed Eustachian tube, he finds the nitre cigarettes, made with brown paper, most successful, and that the smoke forced into the tympanum from the throat gradually restores the sense of hearing. The circumstance which first led him to adopt this method, was hearing a deaf person on one occasion remark, that when he was sneezing the day before, he heard perfectly; the violent effort appeared for the moment to have dilated the Eustachian tube, and hearing was the result. He says, that in a deafness of seven years' standing, he had benefitted a patient more by this treatment than by any other.

Phthisis.—Trousseau long ago recommended a puff or two of an arsenical cigarette twice or three times a day in phthisis.

When the attention of the profession has been duly aroused to this subject, there will doubtless be found many other affections in which medicated cigarettes may be advantageously employed, as in syphilitic ulcerations of the throat, ozæna, offensive breath, obstruction of the lachrymal duct, diphtheria, &c., &c.—*Canada Lancet.*

UNDUE RIGOR IN THE MANAGEMENT OF THE SICK.

Next to the professional tyranny of overdosing, we would set that which seems to take delight in placing the unfortunate patient under excessive restraint in matters of diet and regimen. There is a class of physicians, happily growing smaller every day, who seem to think that the moment that a man gets sick all his natural tastes and appetites must be put in the closest bondage. Sickness being an abnormal condition, of course the normal demands of the system must be opposed, to bring the whole operation of the machine into consistent working. The food must be entirely different from that which is palatable at other times, and the ingenuity of friends and attendants must be taxed to provide substitutes for the usual beverages of health. We think we are speaking to the experience of every physician when we say that very often these well-meant efforts are a source of infinite disgust and discomfort to the patient. Some physicians there are who are so constituted that the bare suggestion by the patient of some article of food or medicine is enough to set them in dead opposition to it. Nothing can produce a stronger dislike on the part of an intelligent patient than such a display of professional authority. Well do we remember the vehement expressions of a sufferer from such severity of discipline, when describing a series of such "slips between the cup and the lip" by which he had been made to feel the authority of his medical adviser while recovering from a severe surgical operation. He was fully possessed with the idea that the interdict was merely an exercise of arbitrary power, and his experience in one instance, when the prohibition came too late, only confirmed this impression.

Cold water is an innocent fluid—of late years it has had its extravagant admirers even—and yet how common it is for patients to be unduly restrained in the use of it. How many unfortunate infants, gasping for it in the parched and fervid heat of scarlet fever, are compelled to swallow saffron tea instead! In such cases we know the fear of nature's refreshing draught is much more apt to be on the side of the parents and friends than the physician. And yet this is not always so.—Not long since we saw a patient, an adult, suffering from severe pneumonia. Some dissatisfaction on the part of the pa-

tient led her to call in another practitioner. "Doctor," said she, "is there any objection to my drinking cold water?"—"Certainly not," was the answer. "Why," said the patient, with a look of the greatest satisfaction and relief, "Dr. —— wouldn't let me touch a drop of it." The nurse then joined the colloquy, and confessed that she had "*unbeknownst*" to the doctor, given it to her, but it was under a fearful sense of responsibility.

In conclusion, then, let us bear in mind that *natura duce* should be our motto in matters of diet and regimen with the sick, as it is in all other matters of treatment. To most of our readers we know such a suggestion is superfluous, and almost demanding apology. That thirsty sufferer, then, must be our excuse; we trust it is a sufficient one.—*Boston Med. Jour.*

THE ARMY SURGEON: HIS STATUS AND DUTIES.

I. The *rank* in the medical corps is like that in other corps, extending from that held by the Surgeon-General, which is that of a Brigadier General, to that held by the youngest (by appointment) Assistant-Surgeon, which is that of a 1st Lieutenant. A medical officer has choice of quarters according to his rank, and is entitled to the courtesies allowed his rank on all official occasions, as on court-martial, &c.

II. *Authority.*—The medical officer commands *in his own department;* his authority extending over junior medical officers, hospital attendants and inmates. He may order soldiers into or out of the hospital, even against the wishes of a ranking commanding officer; but is himself subject to arrest and trial by court-martial for the real or supposed improper use of this authority. In the absence of other commissioned officers he may command a post, or lead men in battle. In the presence of other commissioned officers, he does not command out of his own department, even though such commanding officer ranks only as Lieutenant, whilst the Surgeon ranks as Major.

III. His *duties* are, 1st. To *request* of his immediate commanding officer that quarters, attendants, and transportation be furnished for the sick; 2nd. To provide medical and hospital supplies to meet the necessities of the command; 3d. To attend to the sick, using all necessary oversight to insure pro-

per attention on the part of the attendants; 4th. To bring to the notice of his immediate commander any and every fact bearing upon the health of the command, in order that the proper action may be taken and the appropriate orders issued to the Quartermaster, Commissary, or others. In this way only can he *authoritatively* influence the camp police, ventilation of quarters, the mode of cooking, hours of eating, &c.; but he is not debarred from using the powers of advice and persuasion, often more potential than military orders in these matters.—*Sanitary Reporter.*

RESPONSIBILITY OF THE ARMY SURGEON.

When suffering or calamity befalls or swift destruction overtakes any one, the first inquiry and most natural is as to its cause. "Some one has blundered," or worse, and the disposition is frequently evinced to censure others than the sufferers though entirely innocent. A steam boiler *may* explode and the engineer be entirely guiltless of the consequences; and so many a man languishes and dies through no fault of his medical attendant. The disposition to uncharitable animadversion is even more frequent and unreasonable toward the medical men connected with military hospitals than toward men of the same ability and professional devotion in private practice. A brief *resume* of the duties and privileges of the medical corps will be found elsewhere in this number, and to it we beg to refer the reader for an exposition of the status of the medical officer in the army. We do not now propose to discuss the question as to whether or no his position or privileges are exactly what the interests of the army and humanity require they should be; our present aim is to correct a misunderstanding which is quite general and mischievous.

The surgeon has the immediate care of the sick and wounded of our armies. Over these, when once in his hands, his control is complete; but as to the matters which relate to the health of the command, his power is merely *advisory.* He cannot command the abatement of a perilous nuisance, neither can he order the removal of a camp from an unhealthy to a healthy site. He cannot compel the digging of a sink, the draining of a cesspool, the proper ventilation of quarters, clean-

liness of camp, clothing or person, or exercise authoritative supervision over the cookery, habits, or exercise of the men. Orders in all these cases must be issued by the military head. These facts are mentioned, not as indicating any adverse opinion as to their propriety, but as facts which should be more generally understood. There is frequently—perhaps generally—that perfect harmony of purpose and co-operative action between the medical and military departments, which devolves the hygienic management of the command as entirely upon the surgeon as the administrative and tactical in the hands of the commanding officer; but the exceptions to this rule are, unfortunately, by no means rare. In the instances in which there is not this strict and hearty concert of action, the health of the command may suffer severely from preventable disease through no fault of the surgeon.

Necessity is the higher law in military campaigning, and frequently demands the infraction of well-recognized sanitary measures. Exhausting marches, innutritious food, short rations, insufficient clothing, camping grounds reeking with poisonous exhalations, are often accepted as risks which are indispensable to the accomplishment of the objects of the campaign. Whilst much may be done by way of mitigating the effects of these and other adverse conditions, they must frequently be encountered as constituting portions of the extra hazard inseparably connected with military life.

Perhaps the surgeon is more hampered in his efforts to serve his command by the absence of independent transportation than by any other single regulation. Paragraph 1,103, Revised Army Regulations, provides that "the baggage trains, ambulances, and all the means of transport continue in charge of the proper officers of the Quartermaster's Department, under the control of the commanding officers." The surgeon is the only official representative of those who, whether from sickness or wounds, are unable to fight. During an active campaign, this class is an embarrassing and vexatious hindrance and the difficulty encountered by the surgeon in taking proper care of these unfortunates without a real or apparent weakening of the available force, is often very great. Before the days of the great Pare, the father of French and military surgery, the wounded were frequently abandoned to the uncertain sympathies and succor of the inhabitants of the country where the battle had been fought. Pare organized a system of military hospitals which moved with the army, and originated the idea of an ambulance operating in the immediate rear of the scene

of action. Great improvements have been adopted since then in military surgery, in the appliances and management of field and general hospitals, and in the structure of the ambulance; but now, as then, the medical officer is entirely dependent upon the disposition and action of non-medical men for the possession of the necessary facilities for caring for those whom the fortunes or misfortunes of war have thrown upon his hands. One of the problems most carefully pondered by the conscientious surgeons in this war has been how they could best utilize their *material* for the good of their charge. Many efforts have been made in the various armies of the Union to properly systematize the ambulance department, but thus far without anything approaching satisfactoriness, mainly because Congress has failed to legalize and organize an ambulance corps. The same holds true in regard to the difficulty frequently experienced in procuring their medical supplies. On various occasions the medical transportation has been so effectually locked up and lost in the chaos of baggage trains, that the surgeons have been entirely destitute of their regular supplies for days after an engagement—depending exclusively upon the resources of the neighborhood, and those which had, somehow or other, been got through by the Sanitary Commission. To mention no lesser instances, this was especially true of the great battles of South Mountain, Antietam and Perryville.

Having shown some of the impediments in the way of the usefulness of the army surgeons, it only remains for us to say that, in view of all the difficulties—necessary and otherwise—the medical staff has accomplished all that could be reasonably expected of it. An opportunity unusually favorable for forming a correct estimate of the moral and professional status of the medical corps in the Department of the South, in the Army of the Potomac, and in that before Vicksburg, has led us to believe that as a class those comprising it have been grossly misjudged and misrepresented. Exceptions there are, but we do not hesitate to say that the most hard-working, self-denying earnest, and conscientious officers in the army are its surgeons. True, "there are those among them so ignorant, and others so depraved, that they are a curse to the service, *opprobria* to the professin, and a disgrace to those by whom they were commissioned, yet such are comparatively few; most are laborious, faithful and meritorious. The greater part have passed a rigid examination before a competent medical board, by whom they were declared well qualified for their duties, and have since, by their services in the field, vindicated the propriety of

their selection from the great number of candidates for the places which they hold. During the past year and a half all the surgeons have been overworked; few have escaped disease contracted in the discharge of their duties; many have gone home permanently broken, and not a few have been martyrs to their faithfulness."—*Sanitary Reporter.*

A WORD TO PATIENTS—"HOW TO TREAT YOUR DOCTOR."

The question is, what are our country friends to do when they come here for advice. We honestly advise them to do that most difficult of all things, to shut their mouths and their ears. Choose your adviser, and address him as a gentleman; do not try to cross-examine him as though he were a thief, and you another. You are quite incapable of understanding him without all your limited powers of attention. Don't try to be "smart;" don't ask him if he "ever saw or heard of such a case before." If you do he will think you a conceited, selfish fool. Don't ask him to trust you; if he investigates your case faithfully, remember he does it for the fee. If his opinion is worth having, it is worth paying for. He has always quite as many charity patients whom he knows as he can conveniently attend to. Never continue running to his house at daylight, because the poor man is probably asleep, and he will lose interest in your case if you persecute him and his family. When you have had his opinion, and he has answered your questions, go away; his office is not a saloon for entertainment. Never pick your teeth nor clean your nails when talking to him. If you smoke or chew, do neither in his office, if you wish him to consider you a decent man. Finally, if you come here to consult a mesmerist, an herb or Indian doctor, or a hydropathist, or an academy doctor, do it with faith, and do it only; don't distract your miserable brain with the opinions of others. If you are not a reading and thinking man, if you have no Encyclopœdia at home, and must depend upon your own poor judgment or that of a doctor who has no head nor library, and if you believe that the man you are determined to consult can cure you, try him in Heaven's name; swallow his physic, even if he pour eleven kinds into one tumbler; he

will not probably kill you on the spot, for that would be very foolish; and these people ar always, as Bacon says of the ant, "wise creatures for themselves." They want you to live as long as possible, so that you may take and pay for at least a hundred bottles, perhaps two, and then when death does come you will die happier, because you at least had your own way, and did not get kicked and cuffed into some one else's path who knew no more than yourself. You can do no more than use the brains God has given you, and we have generally noticed those who have the smallest stock, enjoy the uncontrolled use of them with the greatest zest.—*Scalpel.*

PHYSIOLOGICAL AND PATHOLOGICAL PUS.

M. Jules Guerin thus sums up the doctrine he has been so long working at: "There is a fundamental difference between pus secreted by wounds and pus furnished in different morbid collections. In the former case it is modified blood; the return of this fluid and the elements which compose it to their normal condition, it is *physiological* pus. In the latter it is a contaminated fluid, changed by the morbid elements of which it is the vehicle—it is *pathological* pus. Physiological pus possesses, like the blood, a kind of vitality, while pathological pus is a dead, excrementitious product, susceptible in the highest degree of undergoing putrefaction. This great and important difference is especially appreciable with respect to traumatic abscesses and cold abscesses, constituting collections. The former require to be opened as soon as possible, and such opening ordinarily leads to no inconvenience; while the latter, on the contrary, are innocent only as long as they are sheltered from the air, their opening almost constantly giving rise to putrefaction of the pus, and exposing to the danger of purulent intoxication. The differences are therefore not merely nominal. Numerous investigations have shown that the decomposition of the pus is especially due to oxygen, hydrogen, and nitrogen, carbonic acid taking little part in this. Putrefaction, properly so called, results from the presence in the air or in the pus itself of dead organic elements acting as ferments." These different considerations led the author to establish his *subcutaneous method* of treatment, or treatment by *occlusion.*—(*Gazette Medicale—Cosmos.*

EDITORIAL AND MISCELLANEOUS.

WORK FOR THE MEDICAL SOCIETIES.

Perhaps the first thing to be done in carrying out the comprehensive methods of observation we indicated last month is, to secure complete and thorough geological surveys of each State or territory, county, town and district—the information thus obtained to be generally diffused, and not left to moulder away among the dusty archives of fossil State libraries. At all events each physician should make it a fundamental point to understand the geology of his own region of country, and, if there is not a record in the central bureau which we propose, he should briefly sketch it in the first "case" which he reports.

What may be termed the *accidental conformation* of the earth's surface also is to be noted. The hills and valleys, the levels and elevations, the sources and direction of running waters, the extent or absence of standing water, alluvium and diluvium, the porosity of the surface at all points, the matters held in solution or suspension, or deposited by the waters.—The character of vegetation, including the complete botanical history of indigenous and exotic growths. And with this the zoology should be allied. Then the meteorology—the dew-point, the times and amount of falling rains and general hygrometric condition. Thermometric and barometric variations—the general direction of winds, and the character of the surfaces over which they have come.

Emanations from the earth, gaseous or organic, from decomposing dead or disintegrating live matter. The effluvium from men or other animals collected together, requiring study of the atmospheric changes produced by their isolation or aggrega-

tion. The presence of manufacturing establishments or other exhibitions of human industry, changing, more or less, the air in great or small spaces. Electrical conditions, magnetic conditions, and, in fine, every physical influence operative upon man or animals.

Then the general *physique* of the men who inhabit the country whose peculiarities have been thus sharply scrutinized—whether native or immigrant; their ancestry and nationality; the conditions of their origin and race, and the changed or similar conditions under which they are now placed. The relations of inter-marriages of the races, or the prevalence of marriages of the same race "in and in," albeit out of the limits of illegal consanguinity. The occupation, habits of life, dwellings, clothing, food, including methods of cookery, drinks whether as ordinary beverages or exhilarants. Whether accumulated in masses or scattered. The general or particular mental influences operating them. The ratio of mortality from all causes to the number of living and the number born. The proportion of marriages and births, legitimate and illegitimate. These involving a complete registration of births, marriages, and deaths. Then a registry of diseases of whatever variety or intensity; not of extraordinary or exceptional cases, although these should be put down, but of ordinary and common cases. The duration and relative mortality of each, and all the time with special reference to the general and particular conditions under which each is placed. Among these conditions we may place the medical treatment, and all supposed remedial measures.

The history of Epidemics of every variety should receive particular attention, not, perhaps, because this would tend better to elucidate the great mysteries of disease, but that they may be proved, as has been wisely surmised, to be under the control of orderly laws, and largely, if not wholly preventible. The concentrated effects of epidemics strike the public attention, and awaken public anxiety, beyond the vastly more deadly causes which, operating all the time, sap the foundations of the

general health, and, here and there at scattered points, rob of life.

As it is the design of this paper merely to indicate, not to elaborate, methods, it will not be expected that we shall point out everything necessary to be observed. In these days of marvelous developments, when spiritual rappings are believed by some, even of the magnates of the land, to render unnecessary any exercise of the brains, it seems proper for us to recall the professional mind to the strictly Baconian method of arriving at the truth. It is fashionable to believe that it can be secured by a bold *coup d'etat*. There is not one of us but what has built up on the little foundation of what we have seen or think we have seen, divers crude opinions to which we adhere with the most inflexible tenacity. In truth the crude "system" of the thinking man is infinitely better than the *no-system* or bold dogmatism of the unthinking man.

We are ready to admit that Veratrum Viride and Chlorate of Potash are a long way in advance of the blood-letting and salivating of old time—we will even confess that Scutellaria and the Sulphites surpass in intrinsic energy the "oil from a dead man's brains," of mediaeval medicine, or the *Mistura Pythonis* of later times,—but we must still be permitted to say that the use of all these things savors of the baldest empiricism, whilst yet we are ignorant of the diseases themselves, and the *essential relations* of their circumstances. Facts standing isolated are little better than fictions—wrongly interpreted they are worse, for a little truth gives great weight and power to falsehood. A little fragment of mineral may deflect the magnetic needle, or wholly reverse its direction. To get just ideas it is needful to approximate the *all*, not the partial only, yet the minute, the microscopic, and the partial must be studied, else the comprehensive, the gigantic and the general may be misunderstood.

There have been many efforts on the part of members of the profession to rise to the level of widely extended inquiry and research. There are few who will venture to deny its

importance—nay, its paramount importance—but, practically, efforts in this direction have generally failed. The only approximation to success has been in the armies of the world, preeminently in our own army, and at the present time, and the fruits of this are not yet gathered.

Nequaquam nos homines sumus, sed partes hominis. Ex omnibus, aliquid fieri potest, idque non magnum,—ex singulis fere nihil. Thus wrote Scaliger long since, and the centuries can not contradict it. The greatest of minds accomplishes "almost nothing" single handed, but by union *something* can be done. Associated effort can secure what cannot otherwise be attained. Failures to succeed in the comprehensive inquiries we have indicated, are immensely more numerous than successes, and this notwithstanding the medical societies. Alas, the medical societies resolve themselves into Trades-Unions, Punitive Leagues, and Cerberi over the Code. They would expel somebody who pronounces not the Shibboleth as their ears demand, and who does not believe in pitiful specifics, and pitiful *sine qua nons*—apotheosized by hecatombs of deaths, and, here and there, perchance a cure—perchance an escape.

The difficulty and the remedy are alike obvious. The very persons from whom we most anxiously wish information, are the very ones who are the most overworked in the practice and details of the profession. They have literally no time for elaborate reports or voluminous essays. A thousand men will answer yes or no, where one will write a reply to a general circular of inquiry. And yet to be worth anything their reports must be full and explicit, clear and methodical. Let the medical societies at once discuss upon what points knowledge is needed, (Heaven and Earth both know these are abundant enough!) and reduce the whole to questions, carefully digested, and admitting replies, brief and succinct. Then let each member, and as many others as can be interested, be called upon to make periodical answers. To facilitate this, the questions should be printed with blank spaces for answers.

It would be scarcely more trouble for the physician, how-

ever extensive his practice, to fill out and return one of these methodical reports than to make out the papers in a policy of life insurance.

Each medical society should furnish its members with such tables of questions, and require answers. The blanks once filled up, should be referred to a competent bureau or committee, and open to individual study, so that the facts might be collated and compared and the legitimate inductions made.—We should thus in a short space of time have an accumulation of material, for analysis and study, which could not fail to throw a flood of light on the nature of disease, and the influences which beget, foster, control or prevent it. Vain speculations, dogmas, theories, hypotheses and notions would have no place in the true medical science which would emerge from the rubbish and vagabond opinions and fancies under which it has so long been smothered. The rage for specifics and miraculously operating drugs, would be appeased. The Pharmacopœia would be shorn of its huge dimensions, and recourse be had by all true physicians to those methods of cure which, without savoring of the miraculous, would be sure; and having under them the substantial groundwork of reason and common sense, would have to that case the unimpeachable relation of cause and effect. As Bacon promised, we believe this knowledge would yield not meagre, accidental fruits, but generous knots and clusters.

A Manual of Instructions for Enlisting and Discharging Soldiers, with Special Reference to the Medical Examination of Recruits, and the Detection of Disqualifying and Feigned Diseases. *By* Roberts Bartholow, A. M., M. D., Ass't Surgeon in charge of McDougall General Hospital, Prof. of isprudence, Army Medical School. Adopted by the Surgeon-General for Issue to Medical Officers of the Army. Philadelphia, J. B. Lippincott & Co. 1863. 12mo. pp. 276.

This is another of the very convenient manuals which the exigencies of the Military service of the country have brought

into being. It is strictly a handbook containing a succinct statement of the subject without any pretence of exhaustion of the various topics adverted to, which must necessarily be left to elaborate and extended treatises. The book is commended to the use of those for whom the author intended it.

We regret that the author did not illustrate more fully the subject *Malingering*, by adducing more examples of the ingenious methods often adopted to escape the "imminent, deadly"—draft, and the arduous duties and dangers of the field. The expedients resorted to often exhibit a shrewdness, sagacity, and tact likely to baffle the most experienced surgeon, and show mental acuteness upon the part of the malingerer which would do honor to a better cause.

Correction.—An Eastern contemporary, relieving itself, slightly, by another discharge of the fearfully vitiated secretions with which its whole system is contaminated, insists that Dr. R. J. Levis, late leading and living editor of the "Reporter," is not, as has been stated, a "Surgeon of Volunteers," but a Volunteer Surgeon to a Military Hospital.

It also observes that Dr. O. C. Gibbs, whose contributions have been for some time missed from the columns of the same hebdomadal, has not discontinued his contributions—but has discontinued his contributions—*temporarily.*

Surgeon-General Hammond.—A contemporary, deceived by newspaper rumor, states that Surgeon-General Hammond has been removed from his position at the head of the Medical Department of the Army. It is, perhaps, unnecessary to state that this is neither true now, nor likely to be in the future.—His services have been too illustrious, and generally acceptable to the army, for any such inexcusable blunder to be committed.

General Hammond's profound knowledge of Hygiene has been appropriately complimented by the request that he should personally inspect the hospitals and camps of the coast and

gulf, in order, if possible, to ameliorate the sanitary condition of those portions of the grand army. There cannot be the slightest doubt that great good will result from his visit.

Our contemporary trusts that his successor may be a man of "common sense." We suggest that if he does have a successor with that useful commodity, there is no shadow of hope that the successor can secure the approval of our contemporary.

The order on which Surgeon-General Hammond was sent South is as follows: "The Sanitary condition of the Department of the South and Gulf requiring special attention and care at this time, it is ordered:—That Surgeon-General Wm. A. Hammond proceed by the first steamer sailing from New York to Hilton Head and Charleston Harbor, thence to Key West and New Orleans. He will establish his Head-quarters in the Department of the Gulf until further orders, giving his special personal attention to the medical branch of the service in that Department and in the Department of the South, securing the adoption of the proper sanitary measures required for the preservation of the health of the armies in those Departments. He will report to the Secretary of War every ten days." Upon which statement our readers are able to build their own opinions.

We are gratified to hear that Surgeon J. K. Barnes, late Medical Inspector, is to have charge of the practical details of the bureau at Washington, during the temporary absence of the Surgeon-General. A better selection could scarcely have been made.

Why Is It?—That Medical men will persist in mounting hobbies? We have the details of a case where an otherwise reputable physician has gone insane on the subject of persulphate of iron in typhoid fever. He is astounded by the fact that after three or four doses the discharges become perfectly *black*—thus showing the potent eliminating action of the metallic compound. Black and green discharges have been long

relied upon as proving the efficiency of Calomel in carrying away from the system "foul secretions."

It is to be supposed that these agents producing the same effect in health, merely proves the truth of the Scriptures: Not that which goeth into a man defileth, but that which cometh out—this defileth a man. The medicine swallowed hath nothing to do with the filthy result. The proof of the pudding is the *Cholera Morbus* which follows it. All of which is not in the Scriptures but tolerably true.

Yellow Fever—Phosphorus.—M. Melier recently called the attention of the profession in Paris to a highly interesting and suggestive fact. Yellow fever generally rages in those parts around which the phosphorescence of the sea is most prevalent. He sustains the position assumed by M. Lancereaux that the pathological lesions observed in yellow fever are exactly those of phosphoric poisoning, and that the greater part of those persons who have died from the baneful effects of phosphorus have presented the very condition of the liver considered as characteristic of yellow fever.

Suppurative Hepatitis.—J. C. Cameron, M. D., Dep. Insp. Gen., strongly urges, in the *Lond. Lancet*, what may be called exploratory punctures in suspected hepatic suppuration. He insists that the danger is comparatively trivial and that the chances of recovery are vastly above those where nature is trusted to discharge the abscess through the lungs or bowels. He bases his opinions on large experience in the East Indies.

Prof. Blaney.—Surgeon J. V. Z. Blaney has been appointed Medical Superintendent of the hospitals of the peninsula. This is a position of great and peculiar responsiblity, and we congratulate the department, and the soldiery, on the sagacity which has selected a gentleman so pre-eminently qualified as a physician, a man, and a humanitarian, for the position. Our only fear for our excellent colleague is, the biblical woe pronounced against those "of whom all men speak well."

Medical Hobbies.—We have been put in possession of the *facts* of a recent case of reported cure by the use of an old remedy, re-vamped into a modern hobby. We decline to publish the fact of the patient's death at the time the report was made, because it would do no good. To attack the hobby itself would be folly, because it is already broken-in-wind, and "*its eyes is sot.*" What our correspondent has written, if printed, would prove the little leaven which would leaven a big lump of fermentation—not to be caused to cease even by the *Sulphites.*

Pancoast's Styptic.—C. C. JEWETT, Surg. 16th Mass. Vol., reports to the Surg. Gen. of Mass. that Pancoast's Styptic was found preferable to the persulphate of iron in many of the minor cases of hæmorrhage, inasmuch as it leaves the surface of the stump in a healthy condition, and does not produce the thick incrustation so often objectionable after the application of the iron. He does not attempt to give the *rationale* of its operation, but gives the formula from the recipe of Dr. Brinton, Surg. of Vol., and Lecturer on Surgery in the Washington Military College, viz.: ℞. Carbonate of Potash, ʒj; Castile Soap, ʒij; Alcohol, ʒiv. M.

The good effects of this styptic were peculiarly noticed in a case of hæmorrhage occurring fourteen days after amputation at the shoulder joint, probably from one of the acromion branches. Slight pressure on the subclavian for a short time and this styptic were perfectly successful.

Lindsay & Blakiston.—Catalogue of Publications.—Our thanks are due to the enterprising publication house of Messrs. LINDSAY & BLAKISTON for their annual catalogue of Medical, Surgical, Dental and Scientific books. The list embraces many of the best works published.

Thin Skinned.—Medical men ought to be pachydermatous, yet, notwithstanding this palpable truth, we regret to hear that

some of our whilome friends do present here and there an attenuation of the cuticular envelope, exceedingly to be deplored. The lightest touch of the lash elicits in them groanings indescribable. We tender the assurances of our extreme sympathy, and suggest that thin-skinned children are particularly liable to be injured by the careless use of edged tools. Will not the ice-man add to his other beneficence a suitable quantity of the crystalized compound from the "basin" to keep his adopted children cool?

Professional Acknowledgements.—The *Boston Journal* records an instance of grateful remembrance of a physician's services which is a strong argument against the otherwise well sustained doctrine of "total depravity." Dr. ——, of the city of Boston, some years since received a legacy, from a lady, of some twenty-five or thirty thousand dollars, *forty years* after services rendered. The lucky doctor was called upon by the patient's husband to deliver her by forceps, which he accomplished and left the house after a stay of twenty minutes. "Of course no charge was made to a fellow practitioner and the circumstances of the case were consigned to the dusty shelves of past professional experience." The notification to the worthy doctor of the magnificent windfall was so incredible to him, that it required strong persuasion to make him believe it. Who wonders? Reduced to francs this legacy throws far into the shade Mr. Thompson's 100.000, and Prof. Scanzoni's 30.000. It is a curious circumstance in this case, that the physician never saw the patient he had delivered during the whole forty years of her subsequent life. The bequest certainly is voidable on the ground of insanity in the testatrix. The action was not at all in accordance with the ordinary workings of human intellect. If the doctor had been a lawyer and saved the individual a few hundred or thousand dollars, by some quip or quirk of legal legerdemain, we could understand the intense gratitude of the client. Practically, we can understand the sound common philosophy conveyed in the Hibernian's reply

to the footpad who presented a modest request for the pecuniary effects of his victim, on pain of untimely exit by "villainous saltpetre," from a blunderbus. "Take my life, but spare all I have got."

A man's life is the small dust of the balance,—his health but a whiff of smoke in his estimation—but touch his bank stock, his real estate, and his greenbacks, and Oh! such gratitude as their preserver to him will receive! It is but the other day that a very clever gentleman of the legal persuasion in this city was the recipient of a present of *ten thousand dollars* for having satisfactorily discharged the duties of a salaried adviser of one of our city railroads for a few years past. We have no doubt that our excellent democratic friend (albeit on the wrong side in the Hopps' case,) richly deserved the *douceur*, but we could not help thinking that if he had been merely a doctor, and had only saved the lives of the entire directory, they would have grumbled at his bill, at $2.00 a visit, sagely insisting that the Apostle of Medical Reform would willingly visit patients, which he could not otherwise get, at fifty cents —street railway fare for any distance inclusive.

Who hath services of plate presented? Railway directors and dyspeptic parsons.

Who hath watches of gold set with diamonds, together with complimentary resolutions? Conductors, hotel clerks, and the "bosses" of machine shops.

Who hath snuff-boxes of precious metals, bedecked with costly gems? The snob who concocts a toothsome julep, or puffs in a newspaper the emphysematous shares of the Humbug and Swindle Bank or Railroad.

The subject grows upon us and we forbear. It is said in the good book, "All that a man hath will he give for his life,"—but it is equally true that nothing which he hath will he give to the man who preserves his life. On the whole the preserving of mean lives in worthless bodies is a thankless business.

[We received the following too late for insertion in the proper section.—*Ed.*]

DIPHTHERIA.—ITS TREATMENT.

By Dr. W. A. SCOTT.

Diphtheria Wash—℞. Golden Seal, pulv., Black Pepper, pulv., Borax, pulv., Alum, pulv., Nitrate Potassa, pulv., *aa* ʒj, Salt, ʒij. Mix. Put all into a common sized teacup and fill half full of boiling water, stir and then fill full with good vinegar. When the case is bad swab with this wash the tonsils and adjacent parts every half hour. Touch every affected spot. Let the patient swallow after each swabbing from half to two tea spoonsful of the wash. When the patient is not very bad, or is getting better, swab every hour or two, lengthening the intervals as the patient gets better.

In order to keep the diphtheria wash pure I pour the quantity I wish to use each time into a separate vessel. Wipe off any slime or matter that may adhere to the swab, each time you take it from the mouth.

℞. Sweet Oil, Spts. Turpentine, Aqua Ammonia, *aa* ʒj. Mix. Shake each time before using.

Rub this liniment on the throat, outside, once every three or four hours, and keep a flannel cloth around the neck till well. The above treatment is sufficient for all uncomplicated cases, if taken at an early stage; but if the disease has progressed, I give as a tonic, etc., to an adult, 10 drops Mur. Tr. Iron every four hours, with 2 grs. Quinine between each dose. If the disease has advanced so as to cause difficult breathing, an emetic sometimes enables the patient to throw off the membrane and get well, but such cases frequently prove fatal. For an emetic I sometimes use Syrup Ipecac, though I prefer—℞. Tinct. Lobelia, ʒiij, Tinct. Sanguinaria, ʒj. Mix. For a child one year old give a teaspoonful, in sweetened water,

every ten minutes till it vomits. Keep the patient's bowels regular with Castor Oil; use no harsh cathartics; and don't be over anxious if the patient is costive. It is of great benefit to the patient to be washed off once or twice a day with tepid water, in which a little soda and salt *aa* has been put.—This has been my treatment for over two years, and I have succeeded in every case where I have been called first, (which now exceeds three hundred,) and often in other cases after the attending physician had pronounced them hopeless. I still meet with diphtheria in my daily practice, and should consider myself very unfortunate were I to lose a single case under the above treatment.

Palmyra, Iowa, Sept. 20th, 1863.

THE COLORED POPULATION—MULATTOES, ETC.

[COMMUNICATED.]

A Commission has been appointed by the Government to enquire into the condition of the Colored population emancipated by the President's Proclamation and by the Act of Congress, and to report what measures are necessary to place them in a condition of self-support and self-defence, with the least disturbance to the great industrial interests of the country.

This Commission are seeking to ascertain the vital statistics concerning the African race, and the Mulattoes, as well in the Northern and Middle as in the Southern States. It is very important that this should be done, but unfortunately the data do not exist. It is not known, from any wide circle of observation, whether the Mulattoes are as fertile as Blacks and Whites; whether they are long lived; nor even whether their breed can exist permanently; that is, whether its hybridity will prevent its persistence.

Then there are questions about the adaptation of the cross breed to the Northern parts of the temperate zone; questions about the effects of amalgamation upon the white race and the like. The Commission have sent out circulars to many Medi-

cal men, but of course will not reach all who might, if called upon, give valuable aid. We therefore print the series of questions put forth by Dr. Howe, in behalf of the Commission, and invite the attention of our readers to it.

1. What is the number of the colored population of your town?
2. About how many pure blacks?
3. " " " mulattoes?
4. Does the colored population, if not recruited by immigration, increase or decrease?
5. Do mulattoes seem to you to have as much vital force to resist disease and destructive agencies as pure blacks, and as whites; and they usually live as long?
6. To what diseases do mulattoes seem peculiarly liable?
7. Do mulatto families usually have as many children as white families?
8. Can you give instances, within your own knowledge, of the number of children in one family born of, and reared to maturity by, mulatto parents?
9. Are the colored people generally industrious and self-supporting, or not?
10. How is it in the second generation with regard to the number and health of offspring?
11. Through how many generations has any family of mulattoes been known to persist?
12. Do the mulattoes seek public charity in greater or less proportion than whites?
13. Do you consider them, upon the whole, as valuable members of the community, or not?

Those who are disposed to answer the queries, or to favor the Commission with their views upon the general subject committed to it, are invited to address,

Dr. SAM'L G. HOWE, 143 Second Ave.,
Cor. East Ninth st., N. Y.

We are in receipt of Lindsay & Blakiston's Physician's Visiting List, Day-Book, and Memoranda for 1864. The convenience of this little work is so well known as to require no comment. The publishers send it by mail, free of postage, on the receipt of the retail price, viz.: for 25 patients, cloth, 62 cents, leather with tucks and pencil, $1; for 50 patients, cloth 75 cents, leather, $1.25; for 100 patients, $2; interleaved, for 25 patients, from 75 cts. to $1.25; for 50 patients, $1 to $1.50.

Ovariotomy in France.—M. Hugnier lately operated in Paris upon an English girl, aged twenty, whose abdominal development was equal to that observed at the term of gestation. She was operated upon at Bellevue, in the immediate neighborhood of Paris, in a house hired by the hospital authorities especially for the purpose of giving operations of this kind every chance of success. Before reaching the ovarian cyst the operator came upon a nodulated mass, which the gentlemen surrounding him at first took for intestine. It was, however, a cyst developed in the omentum, and which lay between the ovarian cyst and the abdominal walls. M. Hugnier considers that no complication of this kind was ever recorded. The ovarian tumour being reached, was found to consist of some hundreds of compartments, some of which were filled with a thick ropy fluid, others with a clear and transparent liquid. The pedicle was seized and tied with a silver wire, and cut off clean. The omentum, which contained about a dozen little cysts, was tied in the same manner and cut off. The operation lasted nearly an hour, and the patient died about forty-eight hours afterwards of peritonitis.—*London Lancet.*

Anecdote of Baron Larrey.—In a charge of British cavalry at Waterloo, Colonel Weymouth, whether impelled by his own bravery or by some other cause, did not stop till he found himself amidst some French cuirassiers. He then endeavored to ride back, but he was pulled off his horse and wounded. One Frenchman levelled his gun at him, and was taking deliberate aim, when a French officer humanely knocked the gun down with his sword. He then addressed Weymouth in broken English and in a kind tone of voice. He also took a penknife out of his pocket, and said, "Look at thees canif, what you call penknife—Cockspur street, Londres. I was in your country." It was Baron Larry. The British officer, who had previously been fighting under the Duke of Wellington in the Peninsular War, would have entered the next world on the 18th of June, 1815, if the Surgeon-in-Chief of the French army had not interposed to save his life. He is at present residing in this land of good cutlery, deservedly esteemed by a large circle of friends.—*Ibid.*

☞ Business letters to the JOURNAL should be addressed to Dr. E. INGALS, Chicago, Ills., P. O. Drawer 5787. When money is received a receipt will be returned with the next number of the JOURNAL, and subscribers failing to get such receipt will confer a favor by giving us notice of the omission.

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ORIGINAL COMMUNICATIONS.

ADDRESS INTRODUCTORY

TO THE TWENTY-FIRST ANNUAL COURSE OF LECTURES IN RUSH MEDICAL COLLEGE,

Delivered October 7th, 1863,

By Professor E. INGALS.

Gentlemen, Members of the Class:

The exercises of the evening are initial to the twenty-first annual course of lectures in the Rush Medical College, and it is always our custom on like occasions to receive the class with a general introductory address, and in compliance with this custom, I am deputed by my associate members of the faculty to meet you to-night, and in their name I bid you a cordial welcome to these halls, dedicated as they are to the teaching and learning of the Science of Medicine.

We witness this evening with peculiar pleasure the presence of by far the largest class that has ever been convened at the commencement of any session within the walls of this College, and we accept it as a compliment from the profession at large, to whom we owe so much for their generous sympathy and support, and I desire in this public manner to express to them our thanks for this unmistakable evidence of their confidence and approval.

I regret the absence from our circle to-night of the cheerful face of one by whom it has before been adorned. Prof. Miller has been spending a few months beyond the ocean, in lands made interesting by their antiquity, visiting their hospitals, associating with members of the profession and observing their modes and means of teaching. He designed sailing from Liverpool on the 30th ult., and already his feet must well-nigh press again his native land, and in a few days we may expect him to resume his labors before the class, physically invigorated by the recreation of travel, his mind enriched by observation, and bringing with him something additional to our present means for illustrating the several branches of the course.

But my regret at the temporary absence of one, is more than compensated by the permanent addition of Dr. E. L. Holmes, another teacher, to our ranks. Of his modest worth, and rare scientific attainments in the branches in which he proposes to instruct you, his presence forbids me to speak in such terms as my feelings would prompt and truth would justify. I trust that our efforts to give you something more than ordinary opportunities to become familiar with diseases of the eye and ear, and their proper treatment, will meet your approbation and redound to your advantage.

During the current course of lectures our relation to each other is to be of the most interesting nature—the relation of teacher and pupil; and the Faculty will esteem themselves fortunate if their intercourse with the class should prove no less pleasant than it has been during former sessions. More than this we do not hope, and can scarcely desire. The same kindness of treatment from you, the same courteous conduct and proper demeanor, an equally sedulous attention to our teachings, will shed over our minds the invigorating dews of a perpetual joy, and go far to recompense us for all the toils incident to the place we occupy. On our part, I may safely pledge that it shall be our earnest endeavor to merit no less than this by the rendition to each of you of every act of kindness that fortune may cast in our power, and by the diligent

and faithful discharge of all the duties that we owe you. Amid the multitude of thoughts that are fit to be uttered on an occasion like this, it is difficult to decide which to choose or which to reject, but it shall be my endeavor to say something that may be *useful* to you, to aid you along the struggle of your student life, as well as in that more real life that shall follow, when at the bed side of the sick you are called upon to apply the knowledge you here acquire. For you will not begin too soon to view your future lives, as it were, in perspective, to indicate as well as you can the general course they shall take, and by the exercise of a judicious foresight assure to yourselves a pleasant and prosperous voyage, a valuable freight, and the safe attainment of a desirable haven. I presume I do not err in supposing that a large majority of your numbers are but commencing the study of medicine and fitting yourselves to enter upon the duties incident to its practice.

To such the future of your lives is as an unknown land, or an ideal world, illumined only by the rays of hope or painted by the exuberance of a youthful fancy. You do not know the difficulties of your present position; the obstacles that will interpose themselves across your several ways; the seductive influences that will environ you, ever inviting you to leave the straight and narrow path in which you now promise yourselves you will walk. Happy should I be, could I point out to you some of these difficulties and dangers, to the end that you may the better overcome or avoid them, thus rendering your course the more easy, your success the more assured, and your usefulness the more abundant. With these objects in view, my interest in your welfare prompts me to the usually thankless task of proffering you some words of advice and direction, and for this office my past experience has not been unfavorable, for at a day distant enough to correct the false colorings that so generally surround objects but little removed from our mental vision, and yet not remote enough to be obscured by frogetfulness, my place of observation was the same that you occupy to-night, and what is past to me, *has*

been, essentially, as the future *shall be*, to you, and as I look upon your faces they reflect upon me the retrospect of my own life, and memory with its wondrous powers brings back upon my mind each link in the brief chain of former years, and it seems but yesterday, since in fulfilling my purpose of attending my first course of medical lectures, I found myself the denizen of a busy, struggling city, so in contrast with all my previous tranquil experience, and I do not forget that the remembrance of home and the events of my boyhood would obtrude themselves upon my mind, despite the forbiddings of will. I remember too, the joyous feelings some of you experience, as I returned to my second course of lectures, and found myself surrounded by scenes made glad by memory of the pleasures of a former session, and the meeting again of college friends, and the cultivation of pleasant intimacies with those who were with us for the first time; for I count it as my good fortune that I entered the profession across the threshold you have just passed; that as a student, I occupied the seats you now occupy, and listened to the teachings of some by whom you shall profit, spared yet in the good providence of God to gladden us by their presence. Similar motives, I doubt not, have operated on most of your minds to induce you to make the study and practice of medicine the business of your lives, and to such of you as are fitted by natural endowments for this noble work, and who shall apply the future of your lives faithfully and conscienciously to its performance, I cannot but offer you my hearty congratulations on the selection of a vocation that you have made.

I know it is much the custom of medical men to speak differently on this subject, and to be always underrating the standing of the profession and the desirableness of a place in it; who tell us that our services are little appreciated by the public; that we have more troubles, weightier labors, greater responsibilities, and fewer rewards for all than any other class of society. Against these sweeping assertions, founded as I conceive them to be, mainly in error, I protest. They are

conclusions drawn from distorted views of life, which multiply and magnify the evils that lie close around us, until they so completely overcast the mind's eye with their somber shadows that ills more remote and beyond the field of our own endeavors escape our observation and elude our knowledge.

> "'Tis distance lends enchantment to the view,
> And clothes the mountain with an azure hue."

I must congratulate you too, on the time during which fortune has ordained that you shall study and practice your profession. Never before has so propitious a season offered its encouragements to the youthful devotee of the study of medicine. The mass of medical knowledge garnered and transmitted from generation to generation has been constantly augmenting and in late years with an accelerated speed, and while new truths have been added, errors of the past, hallowed perhaps by the sanction of great and honored names, have been rigidly interrogated and submitted to the crucial test of unbiased observation, and falling before it, have been discarded; the pathology of some diseases, until recently unrecognized, has been made clear; the treatment of many maladies and injuries has been vastly improved; new remedies of marvelous power and efficacy, beneficient gifts from God to his suffering children, have been placed in your hands, and the proper uses of the old have become better understood. Of a truth it may be said, "Other men labored and ye are entering into their labors." Then too, the standing of the profession in the Republic was never so exalted as at present, or its essential necessity to the best interests of society so fully recognized. In the dull and long monotony of peace, men had come to receive the benefits that flow from the knowledge of Medical Science without appreciating fully their magnitude, or the source from whence they came; but the tread of martial hosts and the din of conflict soon awakened them from this listlessness. When vast armies were assembled people were not long ignorant or unmindful that it was disease and not the sword that was the great reaper in the human harvest of war,

and when we witnessed our many battle fields, encumbered with the torn and shattered forms of those noble men who had given themselves with a prodigality, cheerfulness and devotion unparalled in the annals of nations as a "living sacrifice" for their country's good, our sympathies were aroused and we felt under a deep sense of obligation to extend to them every aid and solace in our power. Here was a real emergency in life; it was not the vapors of imagination or affectation; it was not the complainings of the idle or luxuriant; it demanded something more than *adcaptandum* phrases, simple smiles, obsequious attentions, and sweet-scented nothings; here was a manly work to be done; it had to be squarely met; it would tolerate no trick or subterfuge; it was the trial by fire that should sift those who had knowledge and power from charlatans and pretenders. Where did the nation turn in this pressing exigency? Where could it but to the Mecca of true science? Who thought of committing to any of the fungi, the barnacles, the parasites, that shelter themselves beneath the shade of legitimate medicine, the safety of the nation, as bound up in the physical well-being of the soldiers whose stout hearts and strong arms bore aloft amid the smoke and carnage of battle the beloved banner of our fathers and of us, whose stars have illuminated every bright page in our nation's history? Few even of the dupes of these delusions. And it is a source of pride to members of the profession, and of congratulation and joy to every citizen, that the Medical Staff of the army acquitted itself so nobly in this trying and supremely responsible position.

For a time after the war broke out we were afflicted with a set of men who constituted themselves the critics of its conduct, who felt an overshadowing consciousness of their own capacity; men who had never looked upon a regiment of soldiers or stepped across the threshold of a hospital; who had never studied the art of war or the Science of Medicine. If the army moved, or was inactive, it alike received their censure. They usually represented our generals as besotted, or

imbecile, or disloyal, and ever predicted that we should only meet disappointment and discomfiture until something of their wisdom should be infused into the conduct of public affairs. But it was upon the medical staff of the army that these persons most delighted to make disparaging comments, and they seemed never to tire of drawing on their imaginations for descriptions of the total unfitness and heartlessness of the army surgeons. But this has changed now; the war has taught us lessons of wisdom; the self-assurance of many is less arrogant; fragile bubbles have not withstood its shock. The deeds of those of the grand army whose mission it is to destroy, as exhibited on scores of well-fought fields, have stifled the stupid cavailings of these censorious meddlers, and the aggregated reports of the medical staff, whose merciful mission and labor it is to save life, and not to destroy, to assuage pain and not to inflict, have placed the Medical Department of the Army safe in the confidence and attachment of both army and public, and high above the levity, or malice, or ignorance of these trifling and ill-natured critics. It is not an exaggeration to say that no army has been more ably and faithfully served by its medical guardians than ours has been, and its marvelous efficiency has been due, in no inconsiderable degree to this cause. Reflecting upon this, I cannot repress emotions of pleasure when I consider the part the alumni of the Rush Medical College have sustained in this work. From all over the Northwest they have pressed into the service with patriotic fervor, and their record in camp and field has filled us, their former teachers, with pride and made us their debtors. All honor, I say, to every surgeon who has taken upon himself the dangers, the labors and sacrifices incident to this holy work; and you may remember that something of this glory will be reflected along your pathways, and it is more than likely, too, that in other wars, if not in this, you may be called upon to sustain in the field the reputation acquired by the army surgeons now in service; for his faith must be both strong and blind, that shall look in this generation for the

promised period "when swords shall be beaten into plow-shares and spears into pruning hooks." The present too, is a favorable time for entering the profession on account of the increased demand for medical men that has been induced by the necessities of the war. Great numbers of physicians, long established in extensive and lucrative business, have left all at their country's call, and vacancies thus open invite your presence.

It behooves every one commencing the study of medicine to consider carefully whether he is fitted by nature for its successful prosecution, and if he is not able to answer this question affirmatively to his own mind, then it is the part of wisdom and duty to abandon at once all thought of attempting so difficult an undertaking. The *highest excellence* in the profession demands the richest endowments with which nature in her most prodigal moments clothes the human mind. The apprehension must be ready; the reasoning powers good; the judgment correct and rapid; the memory tenaceous; and that all these may be quickened into vitality, the mind must be so constituted as to *love labor;* there must be a steadfastness of purpose that pursues its object in the face of every obstacle, with unflagging energy and unremitting zeal; and all these endowments should be permeated and cemented by a congenial nature, and the breast should be strong with chords attuned in harmony with the vibrations of hope and joy, of apprehension and sadness, that in all times and in all circumstances emanate from chambers where sickness and death hold sway. Without probity and truth; a character above the petty and trivial vices too commonly inherring in human nature; a nice sense of personal honor, which is at once the brightest ornament and the most secure protection of the mind by which it is shielded and adorned, there is no hope for a really exalted position in the profession of medicine. Without these, it is true, some may *appear* to be successful, but it is a *seeming* and *ficticious* success, not *real;* their gilding is exterior, and the interior of their characters is neither to be admired nor

commended. They are "like unto whited sepulchres, which indeed appear beautiful outward, but are within full of dead men's bones and of all uncleanness." If, after a careful self-examination, you are satisfied that nature has given you qualifications sufficient to enable you to take an honorable place in the profession, and having "put your hand to the plow," do not look back, nor suffer yourselves to be swerved from the purpose of your sober judgment by the labors that surround, the obstacles that oppose, or the vexations that annoy you. The aspirations of the morning of life may be sufficiently elevated, the objects desired and sought may be worthy, and the resolution to persevere unto the end may seem well fixed, but as we go forward to the accomplishment of our purpose, unlooked-for opposing forces are found in our way, annoyances we did not anticipate are thrust upon us, cares vexations and burdens, as incidental to the full sunshine of prosperity as the shadow is to the substance, are multiplied or magnified, distant hope is obscured by closely investing clouds, and with a faint heart we retire ingloriously from the field before the battle is well begun. You should always avoid being influenced unduly by what is near and transient, and to govern your actions by the immutable truths, discernable enough, but which may lie beyond the range of easiest vision.

Remember that obstacles if attacked with vigor, judgment, and persevernce, are generally less than they seem, and that "lions in the way," are oftener imaginary than real. While then you devote yourselves manfully to the allotted task before you, you should be inspired by a single purpose, and that the acquisition of medical knowledge. A jealous goddess presides over our time-honored science, who grants favors to no suppliant who brings to the shrine divided affections, and we scarcely need the wisdom of inspiration to know that "no man can serve two masters." An honorable place in the profession will demand of you a lifetime of labor, both mental and physical, for such is the inevitable price for which the reward is bestowed, and if you suppose it may be attained through a

life of easy indolence, the sooner you are undeceived the better; and if you are not determined resolutely to assume its labors, you had best seek some easier occupation, as another profession, some of the mechanic arts, trade, commerce or agriculture.

Consider what will be demanded of you—the varied knowledge that will add to the intelligence and success with which you will treat disease. The disciple of medicine must know both the physiology and pathology of nature—he must trace as well as he can the causes that assure health or occasion disease—he must learn the action of matter upon matter within the human economy, and this both under the influences of the vital forces and pathological action—anatomy should be so familiar to him, that he shall know the position and relative location of nerves and vessels as he does the streets and walks of his native village, and of important organs as the different apartments of his own dwelling—remedial agents must be closely studied, their action observed and the circumstances, time, and manner for their proper employment well understood—each disease is to be so carefully investigated as to be readily and surely recognized, its true pathology must be known, and its proper treatment comprehended—the wonders of chemistry must stand revealed to the mind. No slothful life will fit one for the delicate and trying duties of the obstetric practitioner, while the higher and broader field of surgery will demand all of labor and capacity. As you come day by day to realize the magnitude of the labors involved in what I have stated, you will not at all times find yourselves above feelings of discouragement and despondency, but the sunlight of manly endeavor will dispel the clouds and shed in upon your minds rays of genial warmth and vivifying power.

Remember how much may be compassed by determined energy, patience, and industry. In the material world, man finds the high-topped hill placed by an Omnipotent hand across the pathway of commerce, and the timid and irresolute turn from it and say it is insuperable; but sturdy, intelligent

labor approaches it and smites it with steel, and little by little it crumbles beneath the steady stroke, until the light of day shines through where darkness was, and the ponderous train goes smoothly on its easy way beneath the mountain's base. So the accumulated obstacles that lie before you in the profession, seeming almost insurmountable, will in a manner that shall astonish you, succumb to patient, persistent, well-directed toil. Your collegiate course will be but an epitome of your whole professional life, for you can never properly practice medicine after you cease to be students, though your studies now and after you have entered on practice will differ somewhat, both in their scope and nature, yet they will either be but segments of the great circle, and one will be complemental to the other. I would impress upon you as of paramount importance, that in your pupilage you master the rudiments of the knowledge of your profession in the most thorough manner, for in these are its sure foundations laid. We live in a city that for rapidity of growth is the marvel of history, and the exigencies incident thereto have sometimes compelled us to extemporize what is usually done at greater leisure and in a more permanent manner. In this spirit we occasionally see tenements erected, not on foundations wrought from the stable rock, but placed only on pine sticks set upright in the earth, and ere a house properly constructed is settled well upon its base, these topple to their fall. The same holds true in the effort to erect a professional fabric. If the foundation is not firmly laid in a thorough mastery of the elements of the science, the whole superstructure will prove faulty and unstable. A proper foundation may be put down, and yet the building may not be completed from a lack of steady purpose to carry it forward, but if the foundation itself is neglected, no subsequent diligence will be likely to atone for this first omission. As to the best plan for conducting your studies while in attendance upon lectures, I can suggest to you no unvarying rules In this, as in all things to a great extent, each must be a law himself. While here, you will acquire knowledge most

rapidly from the lectures to which you will listen, and to the understanding and retaining of these, you should give all your efforts. Some will accomplish this best by taking brief notes in the lecture room; others by trusting to the memory, at least until they have reached their rooms, when they may fix what they have heard better on the mind by a manuscript of the more important facts. Points that are still obscure should be elucidated by reference to the standard text books. There will be some in every class who should give a constant spur to energies that a natural indolence of character may always tend to lull into inactivity and repose, and yet on this point my observation of classes of medical students leads me to inculcate upon you the necessity of diligent and hard study, with some degree of reserve, for it is not unfrequent that the ardor of youthful hope and generous endeavor, require to be repressed within narrower limits rather than to be stimulated to greater exertions. It is by no spasmodic efforts of overtasked powers that you are to acquire knowledge or to achieve success, but rather by such as are easy and long sustained. If you would accomplish most during the lecture term, look well to your health, and do not place too great a weight on your physical powers. Your attendance on lectures and your anatomical studies will be very laborious, and to fit yourselves properly to meet this effort you should be careful to take your regular rest and a full measure of it. Late hours are pernicious to health, and consequently to the rapid scientific progress of students. Do not be misled by the long fashionable talk about the "midnight oil," for adequate rest is better for you than unseasonable midnight oil, and has been indulged to the full requirements of nature by those in all time who have made the most of life, and who have left enduring footprints upon the earth in their beneficent works. You will profit little by sleepy vigils over your text books, and you will unfit yourselves for your duties in the lecture room, where you should bring a clear head and active faculties. Take proper exercise in the open air, and nourish and support your bodies well.

Melancholy memories of the last session have led me in this train of thought and impressed these convictions more deeply on my mind. We then saw one of the most promising of our number cut down untimely from among us, in the very spring-time of a hopeful life, by a disease aggravated, if not induced by a too laborious confinement to his studies. 'Twas "Science' self destroyed her favorite son." Do not however from what I have said, take license to squander your time in idleness, or dissipate it in pleasure, when neither rest nor recreation is required.

You will pardon me if I point your attention to a danger that may be as obvious to you as to me, which has been the frost that has blighted numbers of the most promising buds of hope the profession has ever nourished, whose early hopes have ended only in disappointment and sadness. I allude to the practice of insobriety. Against its malign and seductive influences you cannot pledge yourselves too strongly, or be too vigilant in keeping beyond the reach of danger, and this will never be more imminent than when released from the restraints of home, and exposed to the allurements of a city and the convivialities of college life, and you are fortunate if any who cannot recall to your minds mournful examples of the blight and ruin that follow in the train of the practice of this vice. You may be reflecting that as yet I have promised you nothing as incidental to your professional career but labor, anxiety and vexation—that its responsibilities will not be less than appertain to any private station, inasmuch as you are to hold the health and life of your patrons in your hands, subject to the skill and knowledge you shall possess, and influence in no small degree both their finite and infinite interests—and you may be ready to ask what shall repay for all this? To this I would answer, the rewards are as adequate and certain as are found in any of the pursuits to which man lends his efforts. I would not have those just starting off on the active duties of life, whether as physicians or in any other walk, to expect too much. Inordinate and unreasonable hopes, im-

planted in the minds of multitudes of youth, have exerted upon them only a baneful influence, serving to cover them with disappointment and fill them with dissatisfaction at their lot and station. The young man just entering some college or academy, the better to perfect his education, is told by his partial parent, and over-zealous teacher that there is no station he may not hope to fill—that the Presidency of the Republic—which they usually represent as the most desirable of all sublunary things—does not lie beyond the bounds of his reasonable ambition, and all this is confirmed by the citation of servant boys and rail-splitters who have achieved this elevated position. He is never permitted to forget that every man is the "architect of his own fortune," and "*can be* what he *wills to be*," and he is always instructed to "aim at the sun," not it is true in any hope of hitting that luminary, but that he may reach higher than if his aim is some more humble object. This is not the custom of the best marksmen, they do not calculate all the nice chances of the loss of momentum, but ever hold level on the target, and if it is beyond the range of their piece they provide themselves with one of greater capacity, or go nearer. I would have you apprehend what lies within the compass of your reasonable hopes—what you have a right to expect—that you may put forth suitable efforts to attain this, and securing it, therewith to be content. You every one expect to reap success in your profession, else you would not assume it—but what is it to be successful? You cannot *all* reasonably expect, the *most eminent* success. You may seek it, and approach it as nearly as may, but do not be disappointed if you do not attain it, or conclude that therefore your lives have been failures.

There is only room in society for a few *great* men, as there is only room in the forest for a few trees of the most ample girth and towering and wide-spread branches. Numberless oaks, springing at the same time from a generous soil all promise equally well—but one will overshadow and dwarf the rest, and no wisdom can divine in the early race which shall

be the giant and which the pigmy. Nor is the most exalted position necessarily the most desirable. It is the tall oak that first feels the lightning and the blast, while the humble and sheltered are comparatively secure. The same holds true in the social race and amid ambitious strife.

"He who ascends to mountain-tops shall find
The loftiest peaks most wrapt in clouds and snow;
He who surpasses or subdues mankind,
Must look down on the hate of those below.
Though high above the sun of glory glow,
And far beneath the earth and ocean spread,
Round him are icy rocks, and loudly blow
Contending tempests on his naked head,
And thus reward the toils which to those summits led."

What you have a right to expect from your professional labors, and what you may nearly all attain, is this—and if you reach it endeavor to be satisfied therewith, and do not embitter your lives by sighing for positions that you see others occupy, which may be less felicitous than you suppose them to be. If you practice your profession conscientiously and intelligently, you will have the satisfaction of knowing that you have done something to mitigate the ills that afflict the race, and when your labors are over, you will look back upon a world made better and brighter by your sojourn in it. A place in the profession will enable you to make your social position one greatly to be desired. You may each of you be trusted, respected and beloved in the community in which you live, and into a large number of households may you come, on terms of closer intimacy and friendship than is permitted to any other person outside of the family circle. The privilege of ministering to the afflicted and relieving their distress is necessarily involved in the physician's duties, and sentiments of esteem and attachment cannot be otherwise than engendered thereby.

The practice of medicine not only gives suitable time for mental culture, but if properly pursued, *absolutely compels* it, while its duties intersperse an agreeable and salutary amount

of physical effort. If opportunities are improved by the physician no man should possess more general information than he, and this in itself is a source of ever-present pleasure. To no other class are the secret workings of the human mind so constantly displayed, for before the physician it daily stands, absolutely unmasked. A place in the brotherhood of medicine will enable you at all times to command for yourselves and families the best professional care in sickness, a matter of no small moment. They will be safe in your own hands, or if you are obliged to assign them to the treatment of others, you will be able to form an intelligent judgment as to who is most competent to the trust. The practice of medicine will bring you a desirable pecuniary reward. It is true you will not be likely to amass great wealth by it, nor will you in any pursuit in which you may be so certain to arrive at a competency. The few who acquire large fortunes usually do so in those employments in which failures are numerous, and where great pecuniary risks are incurred. I know this is an object that is not usually held out to medical students, for they are generally taught that the duties of benevolence pertain above all others to the profession of medicine. I cannot see any well-grounded reason for this sentiment. That its members render in charity, of time and labor a greater proportion than any other class of society is true, and this because they are brought much in contact with their fellows in conditions of great suffering and want, and the patient, uncomplaining manner in which they minister to the necessities of such, without any hope of reward, save the silent commendation the conscience brings, reflects upon the profession its highest honor. The sum of gratuitous service thus cheerfully performed seems little appreciated by the public, and indeed it can only be realized by those by whom it is rendered. This benevolence is worthily bestowed, and is rendered, comparatively easily by the medical practitioner, for those who assume this profession are usually men of kindly feelings, and their daily association with the afflicted, and their efforts to abate their sufferings,

quickens their sensibilities, and warms their sympathies, instead of chilling and dulling them as many erroneously suppose. I would not curtail, I would not repress the honorable impulses of the profession in this direction, I would rather encourage and promote them. But the great body of society lies beyond the limits which demand your charity, and from these you have a right to ask, and reason to expect, an ample pecuniary remuneration for the labors you will perform and the responsibilities you will bear. I would not enervate the profession, by taking from it the stimulus of the hope of reward, in which rests the vitality of every enterprise. In the pursuit of these objects do not be discouraged by difficulties —for it is conflict with these which attests and develops true manhood. It was the bearing of the army after a bloody and disastrous repulse from an assault on the works around Vicksburg, which extorted from its commander the highest commendation. Alluding to this, Gen. Grant, in his admirable report to his superiors in command, of the events that culminated in the capture of this city, says: "The assault of this day proved the quality of the soldiers of this army. Without entire success and with heavy loss, there was no murmuring or complaining, no falling back nor other evidences of demoralization." This is the spirit through which ultimate success is most surely attained. Though a single assault should prove unsuccessful do not, therefore, fall back or murmur or become demoralized. Do not expect to accomplish all this too soon. Reflect that it is the adequate work of a lifetime, and because you do not compass it in one year, or five, or ten, do not therefore lose heart, and trifle away your lives in futile efforts to achieve it by some dishonorable expedient as many have done. If prosperity attends you, though it be slow, pursue it with diligence, and remember that the race is not to the swift so often as to the untiring.

What I wish for you is, that from this point you take a comprehensive view of life, and so design it, and frame it, and build it, that it may become a stable, harmonious, perfect whole.

Make the foundations of your professional knowledge sure by mastering in your student life, the elements of the science; keep your moral characters unspotted; imbue yourselves with the spirit of true gentlemen; cultivate a sense of honor that will permit you to do no unworthy act; fix and adhere to the resolution to make your lives those of steady diligence; for by these means only will you become an ornament to your profession and a benefactor to your race.

CLINICAL LECTURES ON DISEASES OF THE EYE.

By E. L. HOLMES, M. D., of Chicago,

Lecturer on Diseases of the Eye and Ear in Rush Medical College and Surgeon of the Chicago Charitable Eye and Ear Infirmary.

INTRODUCTION.

Gentlemen:

In entering upon a course of clinical study of the diseases of the eye and ear and their treatment, it may be well for you to spend a few moments in considering what advantages you are to derive from the time and labor such a course demands.

To a class of young men, who are pledged, as it were, to devote their whole energies and strength to the search for the means and the opportunities of relieving and preventing human suffering, it might seem more than useless to waste time in considering these advantages, almost self evident; for who among you cannot fully weigh the inestimable value of the delicate organ we propose to study; who can fail to appreciate the terrible condition of the unfortunate blind, doomed to grope their way through a life of darkness; who would not feel the deepest interest in seeking the means of restoring such sufferers to the light of day?

And yet, gentlemen, the restoration of the blind to sight,

noble and crowned with brilliant success as the efforts for such a result sometimes are, is not practically a subject of the greatest importance for your consideration at this time. It is without doubt of more importance for you to seek the means of preventing blindness by the judicious treatment of very many diseases which too often, if neglected or improperly treated, result in total or partial loss of sight; or, at least, although they scarcely attract the notice of the casual observer, bring with them much pain and unhappiness, and render their victims unable to perform the common duties of life. Such patients are among the most pitiful objects that come to us for aid and advice.

One would naturally suppose, in view of all this, that so important an organ as the eye, which in every community, especially in the Western States, is subject to a great variety of diseases, would excite the interest of every student about to commence the study of medicine, and of every practitioner in active business, meeting, as he does, numerous and sad examples of these diseases.

But this is not the case. Little has hitherto been done to encourage the student to secure a knowledge of the diagnosis and treatment of Ophthalmic disease: even practitioners usually neglect the study and too often confess not only their ignorance of the subject, but also their dislike to treat patients afflicted with diseases of the eye. Do not misunderstand me. I do not wish to come before you to criticise flippantly the course of study, which has been followed by nearly all the eminent members of our profession of the past and present, and which, all circumstances considered, has been deemed by our most distinguished teachers of medicine in our country the most practical which the student could pursue. I would scarcely venture to dwell upon the neglect of Ophthalmic science on the part of so large a proportion of our profession were it not that the neglect is almost universally admitted.

Few can estimate the extent of evil arising in every community from the ignorance of medical attendants in the treat-

ment of affections of the eye. No small number of patients in this State alone are yearly doomed, from this cause, to long agonizing sickness, terminating in blindness or irreparable diminution of sight, which renders them more or less dependent for life upon others for support, and which increases pauperism and ignorance and even vice among our populace. Fortunately, the consciousness of this ignorance and the painful prevalence of the evils, of which I have just spoken, as its result, have awakened an almost universal desire that better opportunities should be provided for the student to pursue a systematic course of clinical instruction in diseases of the eye. Already, in several cities of our country, greater facilities for this study are afforded the student, and in a few cases lecturers on Ophthalmology have been appointed in our medical schools. In many of the most celebrated medical colleges of Europe, Ophthalmology has long been the subject of special instruction. Teachers eminently qualified for their positions are appointed, and the student is not only encouraged to pursue the study, but is obliged to pass a special examination in this department of medical science, previous to taking his degree.

Now, gentlemen, I only wish to present to you the claims which Ophthalmology has upon you for your most earnest attention—not to set it above other branches of our science.

You are expected to prepare yourself creditably for the active duties of your profession, whether it be in the management of general surgical and medical diseases, or of the lying-in room. Whether you prepare yourself or not for the treatment of diseases of the eye, the public, except in large cities, will turn to you for advice in cases of disease of this most beautiful and most important organ. You will probably, in general country practice, be called far oftener to treat diseased eyes than to reduce a dislocation, to adjust a fractured limb, or to treat a case of typhoid fever or pneumonia. It must not be imagined that practitioners, who are eminently qualified to perform their duties as surgeons, as physicians, or as obstetric-

ians, are able, as is sometimes said, from a knowledge of the general principles of disease, to understand and treat diseases of the eye. Ask any of your friends who have had an experience, however long, in the general practice of medicine, if they are willing to trust their judgment in the diagnosis and treatment of diseases of the eye; they will invariably tell you no, unless they have had especial opportunities of observing the course of such diseases. While diseases of the eye have their analogues in other organs of the system, it requires long study and observation to acquire skill in recognizing the progress of disease in the different tissues of so delicate an organ.

Therefore, I repeat, those of you who intend to practice in the country, owe it as a great duty to yourselves and your patients to be prepared to treat ordinary diseases of the eye. And, I repeat, you will meet with inflammatory diseases of the eye in many parts of our country more frequently than that of any other organ. I have been informed by several intelligent practitioners, that ophthalmic diseases form, at certain seasons of the year, nearly a quarter of all the cases to which they are called. And I would ask, in reference to the relative importance of this subject, who would not prefer to carry through life a crooked limb as the result of ignorance in the treatment of a fracture, than from a similar cause, to pass his days with injured if not extinguished vision. I have seen sad results from neglect and ignorance on the part of the attending surgeon in the treatment of quite a large number of fractures. But sad, as some of these cases have been, I must say no one of them can equal the terrible calamity, which I have often seen, borne for life by the poor victims of improper treatment of diseased eyes. I do not wish you to study any department of general surgery or medicine the less, but to impress upon your minds the duty you have of preparing yourselves for treating ophthalmic disease more than students usually have done.

I wish to ask your attention to what I conceive to be just

views, regarding specialists and specialties, as considerable prejudice on this subject exists in the minds of many men, eminent in our profession, especially in this country. In Europe the prejudice exists to some extent, but is fast yielding to an enlightened appreciation of the demands of modern science. The science of medicine is already too broad for the general practitioner, occupied by his active duties, to be thoroughly educated in every branch. What member of our profession, however studious he may have been, is there, whose judgment would be reliable alike in difficult cases of surgical, medical, obstetric and ophthalmic practice? To whom in our large cities or in the country do even our best educated general practitioners turn for advice, in cases of diseases of the skin, of the chest, of the eye and the ear, of insanity and syphilitic disease? Most certainly to those who have thought most on these respective subjects, who have studied them most and have had the best opportunities to observe the largest number of cases. Even those who are most prejudiced against specialists, in spite of their prejudice most naturally turn to the same class of men for counsel. They cannot deny that the standard authority in each of the departments of medicine and surgery are the works of men, who are specialists in their respective department.

What medical works do the teachers of our medical colleges place in the hands of their students as text-books, or as authorities for subsequent study and reference, but those, prepared by men, who have concentrated their principal efforts of mind upon one class of subjects?

Gentlemen, our science, like every science, is simply a knowledge of facts, and all progress in science consists in the discovery of facts; and the discovery of facts, important facts, is one of the most difficult tasks required of the human mind. As far as I know, in every branch of our studies, ophthalmology as well as general surgery and medicine, facts have been established by the labor and observation of those who have made a special study of the diseases of particular organs.

The same individuals who seem most opposed to specialists, are practically, to a certain extent, compelled to acknowledge the advantage of making a special study one subject of disease or one class of diseases.

And I apprehend, few men in our profession are really opposed to the scientific pursuit of specialties. The prejudice has undoubtedly its origin and support in the fact that the character of so-called specialists, has almost universally been unworthy the noble profession they have entered; they have been unprincipled and ignorant charlatans, who make the public journals a medium by which they spread before the world their pretentious advertisements, full of false promises and impudent arrogance, which are listened to by the afflicted, who, as a result of their misplaced confidence, are not only ruined in health, but robbed of their limited means of support.

Such pretenders are usually as ignorant of the diseases they profess invariably to cure, as they are unscrupulous in their means of extorting money. Whenever, gentlemen, you read in the public journals, the extravagant advertisements of those who profess to possess extraordinary skill in the treatment of the diseases of any special organ, be sure the author of the advertisement is dishonest: his sole aim is to prey upon the means of the suffering and afflicted, to secure which he will trifle with the lives and health of his unfortunate dupes.

To a certain extent, the profession is responsible for the existence of so much charlatanry, especially in treating diseases of the eyes. Were physicians generally less ignorant in the management of even ordinary diseases of the eye, the public would place more confidence in their judgment, and would certainly listen less eagerly to one class of impostors, traveling oculists.

No one, however, even those most scrupulous on this point, can object to the course adopted by some of the most distinguished writers in our profession, who, after preparing themselves carefully in every department, have chosen one to which they have subsequently devoted their time and labors. It is

undoubtedly true, that no one can be so well fitted for the most satisfactory study of special diseases as one who has well studied disease in general, as the student, whose preparatory studies have embraced a wise course of language, literature and science, is best qualified to commence the study of general medicine and surgery. So, gentlemen, if any of you intend to make diseases of the eye one of the principal studies of your life, let me earnestly advise you to pursue with diligence every branch to which your Professors invite your attention.

We are about to enter upon the study of one of the most interesting and yet neglected subjects in the science of medicine. It embraces the anatomy, physiology and pathology of the eye, with all that is known of the beautiful laws of light. The field of study is a wide one—wider than the most of you probably imagine.

The present course, from circumstances which you all understand, must necessarily be somewhat limited in scope. But I shall feel that I have accomplished much, if I can so interest you in the subject, that acquiring such grains of knowledge as you may be able during the coming term of study, you will hereafter continue your labors and perfect yourselves in all that pertains to the treatment of the diseases of the eye.

A few words in regard to text-books. I am sorry to say that in English there is not a single tex-book containing all that is known at the present time of the anatomy, physiology and pathology of the different tissues of the eye. From time to time, as we study the different diseases, I will call your attention to the best authorities. But let me allude especially to the writings of Graefe, of Berlin, and Donders, of Utrecht, in Holland.

The best general works for study and reference are, perhaps, in German, those of Stellwag and Arlt; in English, those of Lawrence and Mackenzie. Possibly, in view of your present limited time for study, the smaller handbooks of Dixon and Williams, although very superficial in some highly important points, may serve your purpose for the present better than any works you can readily obtain.

I would especially call your attention to the *American Journal of Ophthalmology*, edited by Dr. Homberger, of New York. This journal will inform you from time to time of all important advances in the treatment of diseases of the eye. It will give you reviews of new works and translations of valuable monographs. The first volume, just completed, contains a translation of Graefe's monograph on Acute Conjunctivitis and the use of Caustics, which alone, to those of you who cannot obtain the original article, is worth more than the cost of the volume.

CAMP DYSENTERY.

By JEHU LITTLE, Ass't. Surgeon 24th Mo. Vols.

For the last two months I have eagerly searched all the medical journals of recent publication that came within my reach, hoping to find something new in the pathology and treatment of dysentery, but I am sorry to be compelled to say that not a single report or article from any quarter concerning this interesting theme has met my attention. Perhaps this is because productions emanating from the pens of army surgeons seldom find their way into the columns of the journals, or the disease does not prevail to any extent in civil practice during the present year. But few complaints are more common and inveterate in military practice than this; east and west, north and south, summer and winter, in hospitals and in the field, it exists in some form or other, to harass and perplex; and surgeons in changing from one field of labor to another are sure of this, that whatever other disorders they may have to combat, dysentery will come in for a large share of their time and consideration. I do not entertain a doubt, from what I have seen and heard in more than two years' service, but that one-third the deaths and discharges that are

continually thinning the ranks of our army are directly occasioned by this one disease. Everything the books say upon this topic has been read and re-read, all the plans of treatment described carefully resorted to, and yet there is a general dissatisfaction with results and an earnest and perpetual seeking for something new and a hoping that a surer mode of managing this terrible enemy to our brave soldiers may be discovered and made known at an early day.

Our brigade of twelve hundred men has been stationed at Union City, Tennessee, since the first of last August, and during this period about two hundred men have been treated for dysentery, an equal number for diarrhœa, forty for intermittent fever, mainly of the tertian type, eight for remittent fever, two for pneumonia, twenty-five for conjunctivitis and two for typhoid fever. This is a flat country with a good many marshes, an alluvial rich soil upon a heavy clay subsoil, extensive dense forests of splendid timber of every species and variety growing in the Mississippi valley, with an abundant and luxuriant vegetation of all kinds. The water is poor and scarce, obtained chiefly from wells twelve to thirty feet deep, with wooden curbs, when walled at all. There seems to be very little mineral of any kind in this section of country. Last winter and spring months and first summer month were very wet, rain falling constantly, so that farmers and planters put in smaller crops than common, leaving a deal of land to the undisputed and undisturbed possession of rank weeds and grass; but since the first of July there has been but little rain; warm, clear, sunny days and cool, foggy nights. Fruits of all sorts that grow in our country thrive very well here, and the yield this season is quite large.

The food of the men for the most part has been the ordinary army ration issued to our soldiers everywhere, except the full allowance of fresh vegetables and beef, and vinegar has not been furnished at this post.

The every day bill of fare is strong hot coffee, salt fried bacon, heavy, hot biscuits, and coarse brown sugar. During

the greater portion of time the men have had accesss to lager beer and whiskey of inferior qualities, but there has not been a great deal of immoderate drinking, though the habit of taking a small quantity every day has been pretty general; and I am not now prepared to assert that those who drank most suffered greatest from the malady in question.

The duties have been of the most active and exciting, the men being on guard, picket or scouting duty twenty-four hours in the forty-eight, and in either case exposed at night with no shelter but the thick foliage of the trees, and no bed save one or two blankets, and in the meantime drilling and doing camp duty. The men comprising this brigade are old soldiers, most of them having been in the service since the autumn of 1861, have served in the States of Missouri, Arkansas, Mississippi and Tennessee, and are thoroughly acclimated and seasoned to camp life. I believe I have now mentioned every circumstance necessary to give a person a tolerably correct idea of most agents exercising modifying influences, and to enable him to judge for himself what the remote and exciting causes of the disorder are in our case.

Symptoms.—There is nothing new or peculiar in the symptoms worthy of naming; hot, harsh skin; dry tongue, with a moderately heavy yellowish coat and reddish about the edges; pulse a little excited and strong; urine scanty and of a pale yellow or red color; aching in the region of the kidneys; nausea and sickness at the stomach, and occasionally vomiting the contents mixed with bile; griping and pain in the umbilicus and hypogastrium; urgent calls to stool with excessive enesmus, and nothing passing from the anus but a spoonful or two of mucus and slime streaked with blood, sometimes half blood, of the consistence of jelly; dizziness and swimming of the head, and general lassitude and feebleness are the ever present signs of this disease in its fully developed stages. A manifest and general deficiency of glandular secretion is invariably present.

Treatment.—I believe all authors and practitioners recog-

nize two distinct and opposite systems of treatment in the simple acute variety of this complaint, the astringent and the eliminative; but in managing the complicated varieties it becomes essential to take a wider therapeutical range and often employ agents belonging to both, and to neither of these systems. In civil practice, I almost always practiced the astringent system with good success, administering any of the most valuable and powerful of the vegetable or mineral astringents best suited to the case, and on entering the army very naturally began on this method, but with poor success, and after an impartial trial abandoned it and adopted the eliminative plan. It is very true, and worthy of remark, that the class of patients is different in civil practice to that in the army; in one case mostly children and women, and in the other all men; and then the surroundings are widely opposite.

As the disease does not come under our observation here till the third or fourth day, when it is completely established, the men never reporting themselves sick until too ill for duty, I commence at once with the most reliable remedial course of management, prescribing one of the following formulæ, the one considered best adapted to the particular case:

1. ℞. Ol. Ricini, ℥i; Ol. Turpentine, ʒi; Tinct. Opii, ʒiss; Fld. Ext. Ginger, ʒ⅔. M.

2. ℞. Sulph. Mag., ℥i; Aquæ, f ℥iv; Arom. Sulph. Acid, ʒi; Tinct. Opii, ʒij; Tinct. Peppermint, ʒ⅔. M.

3. ℞. Pulv. Rhei, ℈iss; Pulv. Ipecac; Pulv. Opii; Sub. Mur. Hyd. *aa* gr. v; Comp. Ext. Colocynth, gr. vi. M. ft. pil No. X.

Shake the medicine well and give a teaspoonful of the first every two, three or four hours till the desired effect is produced, namely, free and easy operations from the bowels with no pain, tenesmus or blood, and until the alimentary canal is well purged, when a general amendment of all the symptoms will be apparent. A tablespoonful of the second is given every three or four hours and continued till all the more violent symptoms abate and a like improvement supervenes.

One of the pills of the third formula is to be taken every three or four hours till the evacuations are more copious and easy and of a billious character without any blood, or slimy appearances. I often prescribe the common compound cathartic pills, one to be taken every four hours until the wished for result is witnessed.

In the meanwhile the patient is well washed or bathed with warm water, containing potash or soda, as often as deemed proper; kept warm and comfortable, and allowed but a little bland, nutritious, and easily digested food. And I would remark in this connection, that the subject of regimen cannot receive too close attention in affections of the alimentary organs. Warm cloths, sinapisms or fomentations of hops or peach tree leaves, or bitter herbs of some sort are placed upon the bowels over the seat of pain, when there is much distress. Absolute rest in a horizontal position is strictly enjoined when the disease is at its height. When the patient is seen early, a solution of Chlorate of Potassa and Sulphate of Morphia, say one drachm of the former, one grain of the latter, and four ounces of water, a tablespoonful to be taken every three or four hours, will seldom fail to perform a cure if a few simple hygienic rules are observed.

When there is laxity of the bowels after the disorder is cured, I direct one of these pills three times a day: ℞— Sulph. Iron, Sulph. Quinia, Pulv. Ginger, *aa* gr. v; Ext. Gentian, gr. x. M. ft. pil. No. v. Mucilaginous drinks are freely administered during the whole course of treatment if there is much thirst, and they are excellent from time to time when there is no demand for fluids. I would by no means discard injections in treating this complaint, because in some cases their value is inestimable and they should not be dispensed with, as their timely and cautious administration prevents much suffering. When there is much irritation and uneasiness in the rectum and lower portion of the abdomen, and almost continued tenesmus and incessant demands to go to stool, accompanied with prostration, an injection composed

of eight grains of Acetate of Lead, two grains of Sulphate of Morphia, three or four tablespoonsful of good starch and two or three ounces of warm water acts admirably and accomplishes all that could be desired. The Nitro-Muratic bath and the Muriate of Ammonia, in certain cases, are efficient remedies, and their good effects are truly gratifying. When convalescence is fully established, Quinine, Iron, Brandy, Wine and good living soon restore the patient to his former health and strength; generally from fifteen to twenty days from the time he was taken under treatment he is able for duty.

Before commencing the medical treatment of any disease a correct and thorough diagnosis should be formed, and during the progress of the malady every shadow of variation and change should be minutely noted from day to day and the management conducted accordingly. The indications of treatment in Dysentery are clearly three-fold to arouse glandular secretions and expel them from the system, to quiet undue and morbid excitement, and to gently stimulate all the tissues of the organism, and the foregoing prescriptions are designed to fulfill all these indications. All violent and perturbative agents are studiously excluded and the strength of the sick is conserved as much as possible; the principles and practices of hygiene are continually kept in view and insisted upon.

I have hurriedly and roughly given an outline of my plan of treating Dysentery in the army, and I cordially and confidently recommend it to all who pursue a different mode without the satisfaction they wish, as it has proven remarkably efficacious in my hands.

THREE CASES OF ASTHMATIC ATTACKS,

ACCOMPANYING EMPHSEMA, TEMPORARILY RELIEVED BY VERATUM VIRIDE.

By GEO. WINCH, M. D., of Otsego, Wisconsin.

In the summer of 1862, Miss Mary S., aged 16, good constitution, applied to me, stating she had attacks of great difficulty of breathing, lasting from two to four days; then expectoration commenced, discharge from the lungs freely, and would be relieved. On examination of the lungs in intervals of these attacks, I found expiration equal length of inspiration, no roles. I ordered her Sulph. Æth. and Tinct. Opii, and the latter separate in full doses, the smoking of Stramonium leaves, and different staple anodynes and anti-spasmodics. They relieved her but little. One day, as the attack was coming on, I gave her Veratrum Viride, Fluid Ext., gtt. iv. It relieved her in thirty minutes. Since that time, she keeps the Veratrum with her, and when she feels the difficulty approaching, she takes four drops, and now tells me she has not failed in checking the difficulty since I first used it.

Case 2nd.—Mr. A. D., aged 37, applied to me soon after I began the treatment of Case 1st. For a number of years he has suffered from repeated attacks of asthma, lasting two or three days and then, as in the former case, free expectoration and relief. In the intervals, inspiration was weak, followed by a prolonged blowing expiration. The breathing laborious, but slow. Heart sounds, normal. He told me that he had used all the anodynes and anti-spasmodics that different physicians had recommended him, but they did not prevent the attack, and only relieved him slightly. As he was attacked very severely one evening, I gave him Fluid Ext. Veratrum, gtt. v, which he said relieved him more than any medicine

he had ever taken. In four hours he took four drops more, and the next day his breathing was as free as usual, and felt well. Now, when he feels the attack approaching, he takes five drops of the Veratrum, and the effect is as in the former case. Mr. D. has been a miner in California, and he tells me, eighteen months, while there, he was not troubled with the difficulty.

In the third case, the respiration was more normal in the intervals, but the attacks were frequent and severe, and relieved by Veratrum.

The pulse, in the first and second cases, beat ten or fifteen times less after using the medicine than before using it, at which time it was little above its normal standard.

I will say nothing of its action theoretically; but the clinical fact can be proven at any time by the patients.

A CASE OF TREPHINING.

By T. WILKINS, M. D., of Greenville, Bond Co., Ills.

Samuel T. Bryant, 27 years of age, and belonging to the service of the United States, was temporarily remaining in this county. On the 18th of June he was wounded by the breech-pin of an old musket, which was blown out when he fired it and struck him in the forehead, near the median line. On one side, the skull was depressed near the half of an inch. The mind was undisturbed, and when I saw him, five or six hours after the accident, he had recovered from the shock. This being his situation, and the fatality so great after the operation of Trephining, I concluded not to interfere in this way without urgent necessity. One eye was so injured from the explosion and the powder, that it was lost beyond redemption. After being cleansed, this and the wound of skull were

dressed with simple warm water dressing. Morphine, in moderate doses, was given to quiet.

June 19th and 20th.—Rests well. Continue treatment. The case continued much the same till the 29th, when he became feverish and delirious, when blood was taken from his arm till an impression was made on the artery, and the following was given: ℞. Morphine Sulph., gr. ij; Hydr. Chloride, gr. vj. Mix and divide into vj equal doses. S. One every three hours.

June 30th.—No particular alteration in the case. Continue Morphine, and determine to operate as soon as possible, but could not do so until next day, July 1st, when sufficient integument was turned back to enable me to place a small Trephine on a sound portion of the skull. After removing a small crescent shaped piece of bone, I was enabled to remove the fractured portions. Of these there were not less than a dozen, broken in all shapes, and the inner ones pressing on the dura mater which was not broken. After the operation, there was a breach 1½ inches long by 1¼ wide extending to the orbit of one eye and including a part of the median line. But little blood was lost.

The brain was throbbing with life, and after cleansing a compress and bandage only was applied. From loss of integument it was impossible to close the wound as advised by authors. Indeed, with due deference to their opinion, I think the wound ought to be left open. There is far more danger from pent up pus causing inflammation of the brain than there is of the contact of the air.

Before the operation brandy was given, after which he was placed under the influence of chloroform, and, to digress a little, allow me to say, I never give chloroform without first giving an alcoholic stimulant, and no untoward symptoms ever follow in my practice. For the time being, it keeps the heart and arteries in motion. One of your correspondents gives it as his opinion that death (after Anæsthesia) is caused from heart clot. If this be true, it explains the advantage of alcoholic stimulants in such cases.

To return, the delirium soon began to leave my patient after the operation, and in about two days he was again rational. Three large abscesses formed on him, one on the neck, another over the deltoid muscle, and the third over the supra scapular muscle. Several weeks after the operation he took erysipelas, which extended from his face and neck over a large part of his body. This all left him. He then took a catarrh, but has since become able to go to his brother, Dr. Bryant, who practices in Sycamore, Illinois. During the whole of his treatment (after operation) he took large doses of morphine whenever there were symptoms of irritation. His safety, so far, I think, to a great extent may be attributed to this article. Tonics and other articles were used as indicated.

A CASE OF ENTERITIS—WITH OBSTRUCTION OF INTESTINE.

Reported by Drs. YOUNTZ and GOSS,

Of New Salem, Fairfield Co., Ohio,

AND COMMUNICATED WITH REMARKS BY

TOM. O. EDWARDS, M. D., of Lancaster, Ohio.

Was called to see Mrs. Kagy, Oct. 12th, and found her vomiting a bilious fluid, complaining of great pain over the umbilical region, slight tympanitis, with furred tongue, and pulse contracted. Gave her 3 grs. Sub. Mur. Hydr. with ½ gr. Sulph. Morphine, every 3 hours, and ordered sinapism to stomach, to be followed with hop poultice.

13th.—No improvement; patient still vomiting at intervals of 3 hours; bowels more tympanitic; pain more intense, and no action on bowels. Gave her 7 compound Cathartic pills and ordered a dose of oil and turpentine if no action in 6 hours—continued sinapism and fomentations

14th.—No amelioration of the symptoms; bowels more swollen; some difficulty in urinating; vomiting continues as before; great tenderness over the entire abdomen. Gave her Hyd. Sub. Mur., grs. v; Dover's, grs. iij; every 3 hours, and ordered the bowels distended with enemas every hour.

15th.—Found symptoms all aggravated; vomiting purely stercoraceous matter. Gave her croton oil, 3 drops every hour, until she had taken ten portions; also continued fomentations with enema of oil and turpentine.

16th.—No improvement in the case. Stercoraceous vomiting still continues. Abdomen very hard and distended. Countenance still good, with very fair circulation, and skin natural. Left her on Sub. Mur., grs. x; Opium, grs. ij; every 3 hours. Ordered sinapisms to be followed with hop poultice, and continued the use of enemata composed of castor oil, turpentine and milk, every hour.

17th.—Met Dr. Tom. O. Edwards. Ordered Cal., grs. 20; Opii, grs. iij; every three hours. Epispastic over whole abdomen.

18th.—Met Drs. Edwards and Prof. Blackman, who was in Lancaster.

19th.—No change in symptoms. Same treatment continued. Stercoraceous vomiting once in 26 hours. Well controlled.

20th.—Found patient very restless, constantly tossing about in bed, with manifest anxiety of countenance. Still no sleep. Increased Opium to grs. vj.

21st.—Found patient very listless and languid; extremities cold; small pulse, with great anxiety of countenance; refuses to take any more medicine, but vomiting stercoraceous matter, finally prevailed upon her to take some. Continued use of Calomel and Opium; vomiting freely of same matter. Found stricture in rectum forbidding introduction of the enema pipe —overcome by finger.

22nd.—No change since yesterday. Gave her 15 grains of alum every 3 hours, and ordered fomentations over blistered surface continued.

23rd.—Found the tympanitis subsiding, countenance more hopeful; extremities warm, but still no action on bowels; vomiting ceased. Saw her again at 9 P. M., said she felt like having an action on bowels. Distended bowels freely with tepid water enema, which was followed in about ten minutes with a very free discharge, consisting mostly of Scybala. Repeated the enema in about fifteen minutes with like result—after which the distension of the bowels subsided rapidly; the patient felt easy and sunk into a fine calm sleep. Ordered the hop poultice continued, and left her for the night.

24th—Found our patient easy and comfortable—told us that she had two more motions of the bowels attended with a very unpleasant smell. Complained of slight pain in bowels; tongue red at tip. Ordered a dose of oil with a teaspoonful of turpentine, and the hot fomentations continued.

25th.—Found Mrs. K. sitting in an arm-chair feeling very comfortable, having just eaten a very respectable breakfast. She had three operations on the bowels during the preceding night. Ordered nothing but quiet.

26th.—Dismissed the case for want of any further indications for treatment.

Remarks.—Did the alum act on the contractility of the muscular coat of the intestines—or was this a *post hoc ergo propter hoc?* Enemas were most industriously used by aid of pipes reaching far up in the bowel. Drs. Yountz and Goss deserve great credit for their pertinacity and attention to this case. This is the second attack—the first yielding in four days—from what cause is not known. I regard the persistent use of Opii as the most successful in these cases. Yet the alum (most opportune in Cholica Pictonum and in the so-called Milk Sickness) where we have fatal distension of the bowels from the poison. The patient is now well and bore her severe affliction with much fortitude.

Tom. O. Edwards.

Lancaster, Ohio, Oct. 30th, 1863.

SELECTED.

PRESSURE AT THE BOTTOM OF THE ATLANTIC.

Several experiments have been tried during the last few days, at the Wharf-road, to determine what effect the pressure of the Atlantic sea has upon a submarine cable laying on its bottom at a depth of $2\frac{1}{4}$ miles. The experiments were made in Reid's large press, capable of resisting a pressure of above 10,000 lbs. on the square inch. The specimen of cable used is known as the Persian Gulf standard, having a coating of gutta-percha $\frac{5}{8}$ of an inch in diameter. It was subjected to a pressure equal to two miles and one quarter of a mile deep, and the pressure kept on for one hour, first having been carefully tested by what is known as Professor Thompson's reflecting galvanometer.

Some people who call themselves electricians were of opinion that this enormous pressure—about 5,000 lbs. on the square inch—would force the water into the copper core, and by this means deteriorate the cable, if not quite destroy it.

These experiments have completely demolished this theory. On the contrary, when the pressure was removed, the cable was found to be considerably improved, and gave with the same instrument several degrees of improvement. These experiments will be continued during the course of the next week, upon a more extended scale, and carefully recorded.

At the present time several gentlemen wished to ascertain the truth of an old anecdote current at sea, that was said to be performed by an old salt, viz: he sunk a bottle of wine to a great depth in the Atlantic, securely corked, and when pulled up all the wine had disappeared and was replaced by salt water. Another story of the same kind has been long in circulation—that if you take an empty bottle, securely corked, and sink it to a great depth, it will come up filled with salt water, while the cork remains undisturbed.

In order to test the first of these theories, six quart bottles of Bass's pale ale were submerged, securely corked and wired down, then covered with Bett's patent capsules; there were also several bottles of lemonade and ginger-beer, all properly secured in the same way.

To test the second theory of the empty bottle, one was securely corked and wired, one was corked after another fashion, having a large knob left on the cork in the form of a champagne cork, to prevent it being driven in. The third bottle had a wood cylinder put inside, resting on the bottom, and reaching the cork, to give another form of resistance to the cork. The pressure was the same as before, and the time under pressure, viz, one hour.

The results were as follows:—The Bass's ale came out all sound and good, the same with the lemonade and ginger-beer. The small space left by the bottle between the cork and the liquor was filled up. With this exception all was the same. The first empty bottle the cork was driven in, and as a matter of course the bottle came up filled with water. The second bottle with the large knob was also driven in, and the bottle came up full. The third, that had the wooden cylinder inside, on which the cork rested, was driven in to a certain extent, not whole, and this bottle came up also full, showing that at these great depths no corking, however secure, will prevent the water from getting into an empty bottle, and when you send the bottle down filled and well corked, there is no danger of the liquor making its escape and being filled with another; so that the sailor must have drank the wine first, and sent the empty bottle down afterwards.

Another interesting experiment was tried to test the accuracy of Dr. Wallich's statements as regards living creatures at great depths in the ocean.

It is a generally received opinion that no living creature exists at the bottom of the Atlantic—that in these dark and silent regions of the great deep eternal silence and solitude reign, the bottom being a fine deposit of diatomates too minute for the naked eye of man.

To demonstrate this, some live carp, lobsters, eels, etc., were put in the cylinder; the same pressure (Atlantic depth) and the same time—one hour. The whole perished, and came out quite stiff, thus proving that the general opinion on this subject is correct, and that Dr. Wallich's statement wants confirmation.—*Chemical News, London.*

ON THE IMMUNITY ENJOYED BY THE STOMACH FROM BEING DIGESTED BY ITS OWN SECRETION DURING LIFE.

By FREDERICK W. PAVY, M. D.

The author referred to the communication by John Hunter "On the Digestion of the Stomach after Death," published in the "Philosophical Transactions" for 1772. In this communication Hunter notices that in occasional instances, especially in persons who have died of sudden and violent deaths, the stomach is found on inspection to have undergone solution, to the extent of perforation, from the action of its own secretion upon it. Hunter considered that this could only have taken place after death; and to account for why the same occurrence did not ensue during life, he adduced the living principle as constituting the protecting agent. The fact that parts of living animals, as shown by Claude Bernard of Paris, are susceptible of digestion when introduced through a fistulous opening into a digesting stomach, proved that Hunter's explanation does not stand the test of experiment. The author corroborated Bernard's results upon frogs, and referred to an experiment in which he had also obtained the digestion of the extremity of the ear of a living rabbit.

The view at present most generally entertained is, that the epithelial lining or mucus protects the stomach from undergoing digestion during life. This it is supposed is acted upon and dissolved, but being as constantly renewed, the stomach escapes injury. There being no longer the power of producing epithelium after death, accounts for the occurrence of the solution that may then be observed.

To test this view, the author removed a patch of mucous membrane about the size of a crown piece from the stomach of the dog. Food was afterwards digested without, however, the denuded stomach showing the slightest sign of attack. It thus appearing that the stomach resisted digestion notwithstanding the assumed protecting layer had been removed, it became evident that something besides the epithelial lining was required to account for the security enjoyed.

Seeing that the question was still open for explanation, the

following was the view propounded by the author. The existence of acidity, it was first remarked, is an absolutely essential condition for the accomplishment of the act of digestion. During life the walls of the stomach are most freely permeated by a current of alkaline blood. Under such circumstances it would appear impossible that any digestive action could be effected. There would be one condition that would neutralize the other. Acidity is needful for digestion, and alkalinity is a constant character of the blood. As long, therefore, as so free a circulation of this alkaline fluid should be maintained (and this happens to be one of the necessary conditions of life), the stomach will be supplied with a source of protection competent to afford it the security from attack by its own secretion that it enjoys.

Digestion of the stomach may be effected after death, because the blood, being then stagnant, is incapable of offering the barrier produced by a circulating current.

Experiments were mentioned in which the circulation through the stomach had been arrested during life so as to imitate the condition, as far as the stomach was concerned, that exists after death. Although this was effected whilst the process of digestion was actively proceeding, yet it was only in some cases that the mucous membrane of the stomach was attacked. On repeating the experiment, however, having previously introduced a dilute non-corrosive acid (the phosporic and citric were the acids employed) into the stomach, the result was solution and perforation in a short space of time.

The author had expected, when he commenced his experiments, to have obtained the same result upon arresting the circulation through the stomach as occurs after death; but it became evident to him on reflection that although the circulation through the stomach may be stopped by ligatures during life, yet the conditions are not thereby rendered completely identical with those prevailing after death. There is still a circulation all around the stomach, and from the facility with which the permeation of fluids takes place, a certain amount of counteractive influence would still be exerted. By the artificial introduction, however, of an acid into the cavity of the stomach before its vessels were ligatured, the surrounding circulation became inadequate to afford the required neutralizing power, and perforation therefore quickly resulted.

It did not appear to the author that the digestion of the living tissues of animals referred to in the first part of his paper formed any valid objection to his view. In the case of

the frog's legs, he considered it might be fairly taken that the amount of blood possessed by the animal would be inadequate to furnish the required means of resistance. In the case of the rabbit's ear, the vascularity of the part being so much less than that of the walls of the stomach, he thought there was nothing unreasonable in conceiving that, whilst the one might receive protection through the circulating alkaline current, the other might be unable to resist attack. There was no comparison between the position of the stomach and that of the rabbit's ear and the question, according to his view, resolved itself into degree of power possessed by the acidity of the contents of the stomach on the one hand, and the alkalinity of the circulating current on the other.

The author concluded by adducing experimental evidence to show that pepsine was contained in the walls of the stomachs of persons who had died from severe diseases, as well as in the normal fasting and digesting stomach.—*Proceedings of the Royal Society, Jan.*, 1863.

CRUST OF BREAD.

M. Barral has presented to the Academy of Sciences some remarks of much interest concerning the crust of bread and the gluten contained in it. He had recently shown that, when equally dried, the crust of bread is more highly azotized than the crumb; and he also showed that the crust was more soluble than the crumb in water. M. Payen had, it is true, previously pointed out this greater solubility of the crust, and had ascribed it to the conversion of the starch into dextrine during the baking. But M. Barral's experiments show another important fact. "If," he says, "we exhaust with water an equal quantity of dry crumb and dry crust of bread, we find that the soluble portion of the crust consists of from 7 to 8 per cent. of nitrogen, whilst the soluble portion of the crumb contains only from 2 to 3 per cent. The greater solubility of the crust, consequently, depends upon the transformation which its gluten has undergone under the direct action of the 200° to 220° heat of the oven. The soluble portion of the crust is more highly azotized than the juice of meat." M. Barral added, that he was still engaged with his experiments, which he hoped would throw some new light on panification.—*British Med. Journal*, July 11, 1863.

THE UNITED STATES ARMY LABORATORY AT PHILADELPHIA.

Since our last notice of this enterprise of Surgeon-General Hammond's, we have twice visited the laboratory, where Dr. A. K. Smith, U. S. Army, the Director, and Prof. Maisch, the Chemist, politely showed us the several departments at present in operation. The Laboratory buildings are those formerly occupied by Crew, Rogers & Crew, for their chemical works, at Sixth and Oxford streets. The main building has three stories, with a large one-story building attached, and several detached structures for special purposes. All the heating in the main building is effected by steam, except such as is performed by gas burners. A twenty five horse power engine, with appropriate boilers, is erected in a position central to the laboratory operating rooms, and yet separate. Immediately above the boilers, and deriving its heat from them, is the drying-room, which opens by a door into the mill or powdering room. In the latter there are at present two pairs of chasers, and one Bogardus' mill. Two more pairs of chasers are to be erected in a short time. Mr. Maisch informs us that he has succeeded in getting his bolting machine to operate very successfully. In this room is also the machine for making the preparations of free metallic mercury, as blue pills, mercurial ointment, etc., by shaking, as described by Dr. Squibb, except that the plan of the machine is more simple. In this room, all the fine powders, as ipecac, rhubarb, jalap, etc., are prepared, and sent up stairs to be bottled, whilst the chief occupation of the mill is in preparing drugs for precolation. Proceeding eastward from the mill room, the visitor enters the general operating room for Pharmaceutical and Chemical processes; commencing with the percolators, which are adjacent to the mill room, the processes become more chemical towards the further end. The visitor can here witness the concentration of liquids on water baths, and in stills for fluid and solid extracts, preparations of morphia, and for the crystallization of salts. The preparation of the officinal solutions of ammonia is conducted here also, but apart from the other processes.

The large percolators are constituted of wood, lined with tinned copper, varying in capacity from 260 gallons to 150 gallons. Besides these, vessels of smaller size, constructed of tinned iron, are in use for lesser operations. 280 pounds of

colocynth, and 600 pounds of valerian are percolated at one operation. These wooden percolators are arranged on a stage, on a level with, and connected with the mill room, so as to be easily charged. Each percolator has a manhole in front near the bottom, closed by clamps and screws, through which the exhausted material is extracted after each operation. Hanging in front of each percolator is a black-board, on which is written the leading facts of each operation as they are developed, such as name and quantity of material, menstruum, and percolate, with remarks when necessary. Along the eastern end, a range of jacketted steam evaporators are in operation, and jacketted stills. In a detatched brick building, on the north side of the lot, is the room for furnace operations, including the preparation of oil of wine, which will be made in eight-gallon retorts, on sand baths. Here the oxidation and solution of metals, and numerous other operations involving direct heat, will be conducted. In the centre of the area, a building is being constructed specially for the manufacture and bottling of ether, sweet spirits of nitre, and chloroform, with a subterranean store room. Steam heat only will be used, and no light or fire of any kind allowed in the building. The apparatus for ether will be that of Dr. Squibb, described before in this journal. By thus isolating these articles, much of the usual danger of fire will be avoided. Ample space remains in the yard for extending the buildings if required.

Returning to the main building, we find the storekeeper's room next to the mill room on the first floor, and north of this, other rooms, among which are the office and Mr. Maisch's private analytical laboratory, neatly fitted up with apparatus needed in the examination of drugs and chemicals previous to their purchase, when required. On the second floor north is the sewing machine room, in which twelve girls and a cutter, operating ten sewing machines, make one thousand linen sheets daily, and pillow cases, towels, and other items required in the army hospitals. On the opposite end of the building is the filling room, where all powders, salts, pills, and other dry substances are put up in bottles for the medicine chests; and in a similar room directly above this all the various fluid extracts, tinctures, and other liquids are bottled and labelled, each kind put up by itself on shelves for temporary storage, above the counter. The work in these two rooms occupy twelve girls, besides six others engaged in washing the bottles. In the pill room, four girls are engaged in making pills. At present the common pill machine only is employed, the com-

position and formation of the mass is superintended by a Graduate of Pharmacy. The pills made are pil. opii, pil cathart., comp. and pil. hydrarg., U. S. P.; and pil. camphoræ, et opii, pil. colcynth comp. et. ipecac, and pil. quiniæ sulph. *aa* 3 grs.

It should be understood that the medical supply-table for the army is by no means so comprehensive as the Pharmacopœia, and consequently the scope of operations is confined chiefly to those preparations on the list. It is intended to make Ceratum Simp., Cantharidis, and Resinæ, and, as soon as arrangements can be made, to spread adhesive plaster and isinglass plaster for the entire army. Morphia will also be made to an extent adequate to the wants of the whole army. It has been determined to manufacture sulphate of quinia; and as soon as the *bark* arrives this will be commenced, and the experiment of its economy made. About two hundred serons of Cinchona have been purchased.

The basement of the main building is paved with brick throughout, and is used for storing and bottling liquors, and fixed oils. Three girls attend to the bottling of liquors. The medical store wagons and panniers are filled at the laboratory, but made elsewhere. The bottles used are marked in the moulding, "U. S. A. Hosp. Dept.;" and are furnished from Pittsburgh. Each bottle of any size is enclosed in a square pasteboard box surrounded with sawdust or rice husks, and these closely packed in wooden boxes appropriately marked, and then conveyed to the storehouse at Sixth and Master streets.

All drugs are purchased on the requisition of the Director, Dr. Smith, by an order from the medical purveyor (Dr. Robert Murray, U. S. A.) to a drug broker, it being clearly understood that all purchases are subject to the inspection and analysis of Mr. Maisch.

Such is a hasty view of this new enterprise. So far, we are informed, on many leading articles great economy has attended the experiments, and all has been well done. In the sewing machine department, since operations commenced, Dr. Smith says that they have paid for the machines, and saved the Government $1200 besides! Of course it will take a longer period to determine the actual facts of the case, but there can be but little doubt of the expediency of the measure, whilst the necessity for large supplies exists, and under the care of such earnest workers as Dr. A. K. Smith and Prof. Maisch it will receive a fair trial.—*Journal of Pharmacy.*

THE INCOME TAX TO BE PAID BY PHYSICIANS.

The Committee appointed at the last meeting of the Medical Association of the District of Columbia have obtained the information with regard to the Income Tax, embodied in the following letter:

(Official.)

TREASURY DEPARTMENT, OFFICE OF INTERNAL REVENUE,
WASHINGTON, June 11th, 1863.

GENTLEMEN:—Your letter of this date has been received, and contents noted. It is asked whether an assessment for Income Tax is to be made upon collections during the year 1862, for professional services rendered during that year and previous years, and whether an estimate of unrealized, or contingent income due for services rendered in that year, ought to be included? I answer, that the assessment should be made upon all collections during the year 1862, without regard to whether the services were rendered during that or previous years. If any profits made during that year and uncollected, remain uncollected when they might have been readily realized, and with a view merely to avoid the assessment of the tax, they are to be considered as collected, and assessed accordingly; for no evasion of the liability of the tax-payer of his duty under the law, should be allowed to profit him. But merely contingent profits, uncollected, the sum not ascertained, remaining open for adjustment, are not liable to assessment.

2d. As to "expenses necessarily incurred in carrying on any trade, business, or profession," physicians cannot be allowed the wear and tear of horses, carriages and harness, any more than they can of their own constitutions, or of their health, necessarily injured in the practice of their vocation; but any incidental expenses, such as the feeding of horses, hire of servants, and such like, are to be deducted from this income.

Very respectfully,

JOSEPH J. LEWIS, *Commissioner.*

EDITORIAL AND MISCELLANEOUS.

Clinical Lectures on Diseases of the Eye and Ear.—With this month we commence the publication of a series of clinical lectures on Diseases of the Eye and Ear by E. L. Holmes, M. D., Surgeon to the Chicago Eye and Ear Infirmary, and Lecturer on the same subjects in Rush Medical College. Our readers who have been familiar with the occasional essays of Dr. Holmes, as they have appeared in this and other medical journals, will, we are sure, join with us in felicitation that he has consented to place the results of his large attainments, extensive practice and close scientific observation, in this permanent form.

We are not lovers of specialties as such, but when we find the cultivation of specialties based upon thorough general professional acquirement, the case is wholly changed. When our own eyes and ears become afflicted with any of the ills to which those organs are heirs, we shall ask no better adviser than Dr. Holmes. Unassuming and retiring in his disposition, it has been a work of no common difficulty for us to induce him from time to time to come before the professional public, and now we write this little notice of his professional merits, with serious apprehensions of his high displeasure.

Rush Medical College.—It will probably gratify the alumni and other friends of Rush Medical College to hear that the class in attendance the present session is far larger than any other previously assembled. It has been found necessary to considerably increase the number of seats and the demand is still for more, and this demand is being promptly met by constant additions. It is now confidently expected that at the

termination of this, its twenty-first year, the College will put on a "freedom suit" in the shape of buildings capable of accommodating double the present number of students, with a commodious and spacious hospital attached, under the full and immediate control of the institution. A college hospital has become necessary, not only for the interests of the College, but for those of the city and county. The City Hospital is disadvantageously located, and during the war has been "confiscated" to the sole uses of the U. S. Government. Mercy Hospital, so called, is even more remote, and unequal, in every point of view, either to the exigencies of our city or to the convenience of clinical teaching. Practically, it is of no service save to a very limited number of students. It seems to be admitted generally that it has room enough for those at present in attendance, although it would be a mere bagatelle for old Rush. Very superior facilities are now afforded for clinical teaching by the Marine Hospital, which a very large number of the class are taking advantage of. Meanwhile the College Cliniques furnish an amount and variety of illustration fully up to the wants and time of the class, and unsurpassed west of New York and Philadelphia.

All gentlemen of the profession, both in the city and the country, are invited to visit the College whenever so disposed, and they are hereby assured that there is no Register of visitors kept in the ante-room, the contents of which will be published in the next annual catalogue.

Pyrophosphate of Iron and Calisaya Bark.—The attention of readers is directed to the change in the advertisement of this very elegant and really serviceable chalybeate tonic as prepared by Mr. Sargent. In reply to numerous inquiries he publishes the proportions of the active ingredients. Our friends may rely implicitly upon the statements of Mr. Sargent with regard to this or any other medicine he prepares, as we know him to be an accomplished pharmaceutist, and a gentleman of the highest integrity. Mr. S., and several other

gentlemen we could name, are rapidly bringing the apothecary *business* to the level of a learned profession and a fine art.

The distinction between symptoms and signs, so often confounded, is well illustrated by the following from Captain F. B. Head's Rough Notes, taken during some rapid journeys across the Pampas, p. 257:

"The Gaucho pointed to the sky, and said, 'See! there is a lion.' I started from my reverie, and strained my eyes, but to no purpose; and he showed me at last, very high in the air, a number of large vultures, which were hovering without moving; and he told me they were there because there was a lion devouring some carcase, and that he had driven them away from it. We shortly afterwards came to a place where there was a little blood in the road, and for a moment we stopped our horses to look at it. I observed, perhaps some person had been murdered there; the Gaucho said, 'No;' and, pointing to some foot-marks which were near the blood, he told me that some man had fallen, that he had broken his bridle, and that while he was standing to mend it, the blood had evidently come from his horse's mouth. I observed, perhaps it was the *man* who was hurt; upon which the Gaucho said, 'No;' and, pointing to some marks a few yards before him on the path, he said, 'for, see, the horse set off at a gallop.'"

The Englishman might have speculated long and wisely upon the flight of vultures, upon the structure and functions of their organs, even to the minutiæ of a feather, and yet never been so far benefitted by his speculations as to diagnosticate a lion. What are mere symptoms to one, become through a knowledge of their relationship, valuable signs to another.—*Wyman.*

NOTICE TO THE MEDICAL PROFESSION.

Having been engaged in the practice of my Profession at this place for eight years, and, wishing to retire, I offer for sale (*at a sacrifice*) my splendid Residence, Office, and everything belonging to a HOME, and the best location for a Country and small Village practice in the State of Iowa. Amount of practice ranging from $2000 to $4000—just as a man can stand it and is disposed to make it. Terms, $3000. $1500 cash down; balance in three equal annual installments, (secured on the property,) bearing interest.

I will sell. For further particulars address,

DR. KITTLE,

(Box No. 2.) MARSHALL, Henry Co., Iowa.

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SELECTED.

THE MORBID CONDITIONS OF THE BLOOD.

A Lecture by AUSTIN FLINT, M. D.

GENTLEMEN :—I have selected as the subject of the few lectures assigned to me during the preliminary term, the morbid conditions of the blood. I have selected this subject with reference, not so much to its attractiveness, as to its great importance. With our present pathological views, the question as to the existence of morbid conditions of the blood enters into the consideration of a very large proportion of diseases.

As expressive of the importance of the blood, it is distinguished as the *vital* fluid. In literature and common parlance it represents life. "Life's blood" is a common expression. To have one's blood is to take life. Its importance is shown by the fact that its presence in all the so-called vital organs is indispensable to the exercise of their functions. A striking and familiar illustration of this fact is afforded by the temporary loss of the mental faculties and consciousness, as a result of a momentary arrest of the supply of blood to the brain, in syncope or fainting. The blood, in fact, may be said to be the grand condition of vitality. Its detention from a part occasions the molecular death of the part, i.e. gangrene or sphacelus. Its abstraction, beyond a certain limit, from the body, occasions general or somatic death. The suspension of its

distribution by an arrest of the heart's action for two or three minutes only, is fatal. It forms a vital medium for all the organs essential to life, on which they are dependent, as the body or the blood itself is dependent on the surrounding atmosphere. The physiological relations of the blood to the solid parts being so intimate, it might reasonably be expected *à priori*, that pathological changes in this fluid should give rise to corresponding morbid phenomena in the organs and tissues of the body. Observation shows this to be true. There are grounds for the belief that a large proportion of the morbid actions and changes which occur in the solid parts, are due to prior alterations in the blood. In many instances, as will be hereafter seen, the dependence of the former on the latter may be inferred, or rendered probable, although not demonstrable with our existing knowledge. Supplies for the growth and repair of all the body are contained in the blood. This fluid, therefore, represents, in its constituents, all the elements which enter into the composition of all the solid parts. It is taking but a step from the prosaic walks of scientific fact to the domain of fancy, to say that the blood is the solid body in a liquid state. "The blood is the centre round which the general metamorphosis of animal matter revolves, and in which it is perfected."* It might be rationally predicted that morbid alterations in its composition and distribution may lead to diseases seated in the solids, and this will be found to be the case. Another aspect foreshadowing the importance of the blood in its pathological relations, is its office as a reservoir for the accumulation of effete principles, the detritus of the tissues, which are to be eliminated by excretion. Here is a source of disease, as will be presently seen. Again, the physiological activity or mobility of the blood is very great. In this respect it is in striking contrast to the solid parts. It is the seat of unceasing changes, and yet, in health, maintains a uniform state as regards its organization and composition. New matter, derived from ingesta, is daily added in considerable quantity, and a proportionate amount is derived from the decomposition of the tissues. Portions are appropriated by the different structures. Other portions are secreted for various useful purposes in the economy. Other portions are thrown off or excreted. There is a constant interchange of the gaseous elements with the surrounding atmosphere by means of respiration and through the cutaneous surface. Thus, it is the

* Lehmann.

seat of constant and great changes, denoting wonderful activity, and yet its constitution remains the same. In this fact are admirably exemplified the precision and adaptation of the laws presiding over the safety and welfare of the organism. But this activity necessarily renders it more liable to morbid actions and conditions than the solid parts, which in health are less active and more stable.

The blood is a complex fluid. It contains a large number of ingredients, preserving, however, certain fixed anatomical character. Anatomically considered, it consists of certain corpuscular bodies, viz. the red globules, the white globules or leucocytes, and globulins, which are suspended in a liquid called the *liquor sanguinis*, blood-plasma, or intercellular fluid. These are resolvable, by analysis, into numerous elements, some of which are organic, i.e. peculiar to organic bodies, and others inorganic or mineral. Examples of the organic elements are, fibrin, albumen, hæmatine, etc. The inorganic elements embrace various saline ingredients, iron, water, and several gases. Further details belong to anatomy and physiology. It is necessary thus to glance at the composition of the blood, in order to arrange its morbid conditions. These conditions relate to the different constituents of the blood; and, with a view to the consideration of pathological changes, the latter may be distributed into three groups. The first group will embrace the corpuscular, distinguished also as the organized, constituents. The second group will consist of the organic elements. The third group will comprise the mineral substances. Morbid conditions, affecting, severally, these three groups, will be first considered in the foregoing order, and afterwards, morbid conditions due to the introduction into the blood of substances which do not enter into its normal composition. Even with our present imperfect knowledge of the blood in health and disease, it is, in itself, a large field of study, which, considered as a distinct province of medicine, is called *hæmatology*.

Of the corpuscular or organized constituents of the blood, the most abundant and important are the *red globules*. The known morbid changes affecting these, relate in the first place to their number. They may be morbidly increased or diminished in number. An increase of the number of red globules beyond the healthy limit constitutes the morbid condition called *plethora*. A diminution below the limit of health constitutes the morbid condition called *anæmia*.

The relative proportion of the red globules to the other con-

stituents of the blood may be increased by diminution of the latter. This obtains in a marked degree in epidemic cholera, owing to the draining away through the intestinal canal of the water of the blood, together with various elements held in solution by the transuded liquid. The density of the blood in this disease is notably increased; it becomes thick and heavy, and the circulation is mechanically impeded. Under these circumstances, the red globules are relatively in abnormal excess, although they are actually less in number than in health. The term plethora is only applicable to an actual increase of the number of red globules. This is now the significance of the term, without regard to the quantity of the mass of blood. An increase of the mass, causing over-repletion of the vessels does not constitute plethora, although implied in the etymology of the term. This condition is called *polyœmia*. Its existence to an extent sufficient to constitute a morbid condition of importance, is doubtful.

The functions of the red globules in health are not fully understood. Their relative normal ratio to the other constituents of the blood differs considerably in different animals, and they appear to sustain a certain relation to vigor, strength and activity; that is, they are abundant in races, breeds, and individuals, in proportion as the general attributes of the body just named are marked. Their importance is shown by the fact that animals bled nearly to death may be reanimated by injecting into the veins red corpuscles suspended in serum, and not by the introduction of the other constituents of the blood without the red corpuscles. From what is known of their physiological relations, it might be inferred that the effects of their morbid excess would be over-activity of the circulation and undue excitement of organs in proportion to their normal activity and the quantity of blood which they receive in health. The phenomena of plethora denote these effects. The power of the heart's action is increased. The temperature of the body is raised. The brain is stimulated, giving rise to unusual muscular mental energy and excitement. Sensibility and muscular irritability are augmented. In comparing, however, different persons, it is not easy to draw the line of demarcation between more or less intensity of the so-called sanguine temperament and plethora. A better idea of plethora, as a morbid condition, is formed by a comparison of the same person at different periods, and especially if the person have naturally a temperament not notably sanguine. He acquires more color in the prolabia and face. The mucous mem-

branes are reddened. The pulse is full and strong. The heart's impulse is increased. The physical and mental powers are more active. The body is notably warm. Pain in the head is readily induced by stimulants or mental excitement, owing to the abnormal power of the circulation. This condition involves a liability to active cerebral congestion. It is supposed to constitute a predisposition to acute inflammations. It doubtless tends to render inflammations more intense, and to increase the symptomatic febrile movement. It may favor hæmorrhages, especially into the brain, by means of the increased force of the circulation. On the other hand, an abundance of red globules exempts from nervous disorders, to which, as will presently be seen, a paucity of red globules predisposes.

The causes of plethora are, first, a constitutional tendency, which may be congenital and inherited; second, overfeeding, with the use of generous wines and condiments; third, diminished expenditure of blood constituents in nutrition, incident to ease, idleness, and luxurious habits, the digestive and assimilative functions remaining active; and fourth, the arrest of periodical or habitual hæmorrhages, or some other drain to which the system had become accustomed. These several causes are frequently combined.

It is important for the physician to appreciate the condition of plethora, in order to avert the evils to which it tends, by appropriate management. And, as an incidental element in different diseases, it is to be taken into account in considering the effects of therapeutical measures. It is relieved for the time, most promptly and efficiently by bloodletting. An immediate effect of the abstraction of blood is a notable reduction in quantity of the red globules. Of course the propriety of resorting to bloodletting will depend on the degree of plethora and the apparent imminency of evil results. Other means to diminish the excess of red globules are, a reduced diet, as regards the quantity and quality of food, and exercise in order to increase the expenditure of blood-elements in repairing muscular waste, and render the amount of eliminated matter more abundant. Certain medicines appear to exert a direct effect upon the number of red globules. Mercury is such a remedy, as shown by the pallor which accompanies salivation. Mercurialization, however, is never indicated for the attainment merely of this object.

It is important not to confound plethora with other morbid conditions of the blood or circulation. Fulness of the vessels

due to some impediment to the circulation, has not unfrequently been considered as plethora. This may exist where the red globules are diminished, rather than increased. A pseudo-plethora, for example, is not uncommon in pregnancy, the red globules being diminished in this state. Bleeding was formerly employed with reference to this pseudo-plethoric condition of course with an injurious effect on the constitution of the blood. With pseudo-plethora, or fulness of the vessels, there is often evidence of deficient oxygenation of the blood, together with dulness and oppression instead of heightened activity of the functions of the brain and other organs. True plethora is to be determined by the symptomatic phenomena which have been mentioned, taken in connexion with the evidence afforded by the pulse and other symptoms of an unobstructed, free circulation, with the activity of the digestive and assimilative functions, and the existence of one or more of the conditions under which this morbid condition is known to be produced. A microscopical examination of the blood may suffice to determine the existence of the plethora, if the observer be sufficiently practiced to decide whether the red globules in several successive specimens are in excess or not. It may be determined by quantitative analysis, but the process is too tedious and delicate for ordinary clinical purposes.

As regards the essential pathological nature of plethora, all that can be said is, it consists in a hypergenesis of the most important of the organized or corpuscular constituents of the blood, the red globules. The pathologist might expect to explain this morbid condition more fully, if the physiologist was able to tell us where and by what process the red globules are normally produced.

A morbid diminution of the red globules of the blood constitutes *anœmia*. The etymology denotes diminution of the mass of blood, but, conventionally, the term is used to signify reduction of the quantity of red globules. *Spanœmia* is sometimes used in the same sense.

The purest exemplification of anæmia is afforded by cases in which it has been produced by copious hæmorrhages or repeated bloodlettings. It is not easy to effect, except for a transient period, a considerable reduction in the mass of blood. After a loss by hæmorrhage or bloodletting, the quantity of liquid which has escaped is quickly replaced, but the red globules are not so speedily renewed, and hence the latter continue for a greater or less period to be deficient. This condition

is one of the forms of so-called impoverished or poor blood. The degree of impoverishment varies. The proportion of red globules has been observed to fall below the normal range (120 to 130 in 1000 parts) to 70, 60, and even 21 to 1000 parts.

Anæmia is of frequent occurrence. It is incident to a variety of diseases. It gives rise to a multiplicity of phenomena. It is a condition highly important for the physician to appreciate and recognize. The knowledge of this condition obtained within late years constitutes one of the most striking of the characteristics of modern medicine in view of its importance on medical practice. It occurs much more frequently than the opposite morbid condition, viz.: plethora.

In general terms, the pathological effects of anæmia are the reverse of those due to plethora. The power of the circulation is diminished, and there is a deficiency of the functional energy of different organs, the more marked in proportion to the quantity of blood which they receive in health. The phenomena denote these effects. The animal temperature is lessened. Anæmic patients have coolness of the surface, and especially cold extremities. They are not so able to resist cold as the plethoric. The action of the heart is feeble; the pulse is small, weak, compressible. The action of the heart is easily disturbed, becoming rapid from slight causes, and frequently irregular. The mental energy is diminished; persons are not adequate to the intellectual efforts of which they are capable in health. The strength of will and determination of purpose are impaired. The vital functions are languidly performed. The muscular strength is diminished. The surface is pallid from the deficiency of the hæmatine or coloring matter contained in the red globules. This pallor is apparent in the face, and especially the prolabia. The mucous membranes accessible to view have less redness than in health. The countenance at once denotes the existence of anæmia if the condition be marked.

It induces a multiplicity of morbid phenomena arising from disordered action of the nervous system. The relations of the blood to the functional activity of the nervous system are strikingly shown in the morbid phenomena pertaining to the latter, which spring directly from morbid conditions of the former. And the special relations between the red globules and the nervous system are shown by the phenomena incident to anæmia. These phenomena are numerous and diversified. The more frequent and prominent are as follows:—Mental depression, anxiety respecting health, hypochondriasis, irritable tem-

per, want of buoyancy and energy, a feeling of lassitude, and a painful sense of inertia or indolence. There is apt to be a feeling of incapacity for muscular exertion greater than the actual loss of muscular power. The physical and mental powers are especially depressed during the process of digestion. Palpitations frequently occur, so that organic disease of the heart may be suspected by those not conversant with physical means of diagnosis, and is greatly feared by the patient. Neuralgia in various situations is apt to occur, and in females hyperæsthesia of the abdominal walls simulating peritonitis. The varied symptoms which have been heretofore described as belonging to spinal irritation are likely to occur in connexion with anæmia. It sustains a causative relation to nearly all the functional affections of the nervous system embraced under the head of the *neuroses*. A large proportion of persons affected with any one or more of this class of maladies are anæmic; and conversely, a large proportion of anæmic persons become affected with neurotic disorders. It is highly important that this pathological element be taken into account in the management of the neuroses. When it occurs independently of the various affections with which it is connected incidentally, it is characterized especially by phenomena relating to the nervous system. These phenomena may be said to constitute the pathological expression of this morbid condition of the blood.

If it be asked, what is the explanation of the occurrence of these phenomena in consequence of a diminution of the red globules, the pathologist can only say that he may hope to answer the question when the physiologist is able to explain the normal relation between the presence of the red globules and the functions of the nervous system. Pathological facts show that an essential relation does exist between these two anatomical elements of the body. The nervous system depends on this blood-constituent for the manifestations of healthy life, and hence a deficiency occasions manifestations of disordered life, or morbid vital phenomena.

The causes of anæmia, when it exists independently of the various affections with which it is associated, are frequently obvious, but in some instances not assignable. It is a result of hæmorrhages, from wounds, flooding after labor, and in cases of menorrhagia, or injudicious bloodletting. It may proceed from deficient alimentation; the food being insufficient in quantity or not sufficiently rich in alimentary principles. It is caused by a loss of certain of the elements of the liquor san-

guinis or blood plasma, which are necessary to the production of red globules. Thus, frequent causes are prolonged lactation and a rapid succession of pregnancies. The obvious causes may be arranged into the three classes just stated, viz.: 1st, Causes which involve an actual loss of red globules, as in hæmorrhages; 2d, Causes involving a defective supply of materials for assimilation; and, 3d, Causes which occasion expenditure of the constituents of the liquor sanguinis on which the production of the red globules is dependent.

The causes are not always apparent. Anæmia is apt to occur in females at or near the age of puberty, where there has been no loss of blood, no dificiency in alimentary supplies, or no unusual expenditure of blood-plasma. Under these circumstances it constitutes the affection to which the name *chlorosis* was applied before the anæmic condition was fully understood. If this name be retained it should be considered as denoting anæmia under the circumstances just stated. It appears to be in some way connected with the evolution of the reproductive functions. In some cases it may be accounted for by the derangement of the assimilative functions at this period. In these cases the appetite is poor, the digestion disturbed, and there is apt to be a craving for indigestible, innutritive substances, such as chalk, slate, coal, etc. Addison has described cases of anæmia occurring without any obvious causation, accompanied by general debility, which progressively increases, at length ending fatally without appreciable lesions of any of the vital organs. Cases of this kind are occasionally met with, especially in hospital practice. Addison distinguishes them as cases of "idiopathic fatal anæmia." In a certain proportion of these cases, the surface of the body, to a greater or less extent, assumes a dark discoloration or a bronzed appearance, and in several successive cases the supra-renal capsules were found to be more or less disorganized. Addison inferred from these facts a pathological connexion between disease of the supra-renal capsule and the bronzed hue of the skin. Clinical observation, however, shows that the two events are not uniformly associated.

In a large proportion of the cases in which anæmia exists, it is incidental to, or a pathological element of some other affection. And, as thus associated, it may or may not claim the special attention of the practitioner. Of the great number of diseases in connexion with which it is connected either constantly or frequently, the following list will inclose the more prominent.

1. Tuberculosis. Anæmia is generally early developed in tuberculous affections, and may precede the deposit of tubercle.

2. Carcinoma. The pale, waxy, or straw-colored complexion which characterizes some cases of carcinomatous disease, denotes anæmia.

3. The affections embraced under the name of Bright's disease. Associated with œdema of the face, the pallid complexion of anæmia becomes quite characteristic of these affections. The blood-changes which belong to these affections (to be hereafter considered) lead to diminution of the red globules.

4. A host of affections which involve expenditure of other constituents of the blood than the corpuscles, i.e. constituents of the *liquor sanguinis*, such as chronic dysentery and diarrhœa, chronic pleurisy, purulent formations in any part of the body, leuchrrhœa, etc.

5. Affections which involve loss of corpuscles, or hæmorrhage, as menorrhagia, hæmorrhoids, hæmatamesis, etc.

6. Affections compromising the assimilative functions by occasioning indigestion, vomiting, loss of appetite, etc.

7. Certain affections of the liver, and especially cirrhosis. It has been supposed that the red globules are produced within the liver. If this be true, diseases of this viscus may lead to their diminution by interfering with their production. But in cirrhosis this effect is due in a measure to the obstruction to the introduction of fresh alimentary supplies brought by the portal vein.

8. The periodical fevers, if protracted. The special cause of these fevers may induce anæmia even where the fevers are not developed. Persons inhabiting regions called miasmatic, are apt to become anæmic, although they do not experience fever.

Certain mineral substances introduced into the system lessen the red globules in a notable degree. This is true of lead. Anæmia is a pretty constant element of saturnine diseases; and it is observed in persons exposed to lead emanations before becoming affected with the characteristic diseases. The same is true of mercury. Mercurialization quickly reduces the quantity of red globules in a marked degree.

ON THE STRUCTURE AND DEVELOPMENT OF THE VERTEBRATE SKELETON.

By Professor HUXLEY, F.R.S.

In the course of the preceding ten lectures I have done my best to confine myself to matters of fact, and to the interpretation which directly arises from a very simple method as applied to those facts. The matters of fact have, as far as practicable, been demonstrated before you; at any rate, they are capable of demonstration. The interpretation has rested upon a principle so obvious that it requires no special justification—the principle that those parts in various skulls are identical, and should receive the same names, which correspond in development, and in their relations to the soft parts and to one another. And for myself I confess that with the establishment of those matters of fact, of those direct interpretations, the great object of science seems to me to be largely fulfilled. But in the present condition of anatomical views upon the skull, a course of lectures upon the vertebrate cranium which should be devoid of some commentary upon theories which have been offered of the composition of the cranium would, justly enough, be considered imperfect; because there is a true theory as apart from the speculative hypotheses—there is a true theory, which is simply a generalized statement of the facts which we have found out; and there are other theories, which add to such generalized statement other considerations, and which may or may not be capable of verification.

That which is commonly understood now by the theory of the skull, is the doctrine that the osseous cranium—it must be borne in mind that the doctrine has gone no further than the osseous cranium—is made up of a greater or smaller number of coalesced vertebræ, and that, to use the accepted phrase, the skull is a modification of the vertebral column. That doctrine originated with a man of vast genius—a man, perhaps, unexampled in the history of letters and of science, as, combining as I think, the highest proficiency in both departments—I mean Gœthe. He originated, or rather I should say he invented, towards the end of the last century, the doctrine that the skull is composed of a number of segments, corresponding in their nature with the vertebræ. I am perfectly well aware

that this has been controverted. I am well aware that, not only in his own country, where there were personal interests and prejudices coming into play, but even in this country, where no such motives could intervene, the claims of Gœthe to this discovery have been disputed; and not only that, but that it has been more than insinuated—and it is with regret I state it—that the grand old poet, at seventy years of age, full of all the honors which his people had conferred upon him, was guilty of the meanness of taking to himself the credit of the doctrine invented by a young and rising professor, ignoring his claims and setting up others which had no foundation. Nay, more; the audacity of the accuser has gone so far as to suggest a certain stupidity, and that even Gœthe—this man of vast imagination and undoubted ability—was constrained to invent the same method of accounting for his discovery as that which had been given by Oken. The statement has passed into English literature; it is to be found in a work which will be consulted by all who wish to be acquainted with this matter, and it will doubtless be regarded as authority—it is to be found in an article upon Oken in the "Encyclopœdia Britannica."

What, then, are the facts of the case? Gœthe, writing in the year 1820, or thereabouts, has stated that the mode of his discovery of the vertebral composition of the skull was this: —"The three hindermost parts," says he, "I knew before; but it was only in 1791, when I picked up an old and broken sheep's skull amidst the sandy dunes of the Jewish cemetery in Venice, that I perceived that the facial bones were also composed of vertebræ; and perceiving, as I did, the transition from the first pterygoid bone to the ethmoid bone and to the turbinals quite distinctly, there I had an *aperçu* of the whole at once." We shall see that Oken, writing in 1807, also said, and no doubt with perfect truth, that he had been led to his conception of the theory of the vertebrate skull by picking up an old and whitened deer's skull upon the Hercynian, within the Hartz mountains; and it has been more than suggested that this statement of Gœthe's was a sort of clumsy fabrication imitating the invention of Oken. Happily, the general order of things in this world is tolerably just, and a document which Gœthe doubtless had himself utterly forgotten (and which it is pretty clear, by a comparison of dates, he had forgotten) has appeared within the last year or two, which places the veracity of the old poet beyond the reach of the most vigorous and determined assailant. That passage was brought to

light by an eminent German author a year or two ago, who says (referring to a correspondence which had just then been recently published between Gœthe and the family of Herder, the clergyman and great literary German) Gœthe was in the habit of corresponding with these people regularly; and he wrote, among other folks, to Madame Herder. One of his letters has come to light under the date of the 4th of May, 1790, and in that letter is this passage:—"By the oddest happy chance, my servant, by way of a joke, picked up a bit of an animal's skull in the Jews' Cemetery at Venice, and, by way of making fun, offered it to me as if he were presenting me with a Jew's skull. I have made a great step in the explanation of the formation of animals." It is quite clear that this is a complete and perfect testimony to the veracity of Gœthe when, in consequence of various circumstances that took place, he affirmed that thirty years ago (it was exactly thirty years ago) he had made the discovery to which I here refer. It is to be hoped now that all further detraction, at any rate, will cease on that point. And this detraction was the more unwise because it was wholly unnecessary. No person looking at the history of the past would dream of regarding Gœthe, who indubitably invented this doctrine, but who kept it to himself for thirty years—led to that course doubtless by the great difficulties which his vast knowledge and clear judgment showed him were in the way of the application of the doctrine—I say, no one would have been led to set up his claim as a discoverer against that which is justly the right of Oken, who, in the year 1807, in a similar manner to that which happened to Gœthe, was led, by picking up an animal's skull in the Hartz mountains, as I have said, suddenly to conceive that the osseous cranium was composed of three segments, and that the three segments answered exactly and precisely to so many vertebræ. No doubt Oken was the first promulgator of this doctrine; to him is all the credit that may attach to it justly due—all the credit that may attach to the definite discovery of the segmentation of the skull. Whatever we may think about his vertebral theory, no one can doubt at all that the merit of the discovery of the osseous segmentation of the skull is indubitably due to Oken; nor has anything been done since which in any way exceeds in merit that first singular paper which he published on the subject in 1807, under the head of "Ueber die Bedeutung der Schadelknochen." It was his inaugural address on taking the chair at the University of Jena; and to show you how easily this notion may have arisen,

I have here that subject which led Gœthe to imagine the vertebral theory, and that subject which Oken made use of as the best illustration of it—I mean a young sheep's skull. The parts here have simply been macerated, and otherwise are left free in their natural connection; but you will see that it is perfectly easy, by exercising a little pressure, putting in the first place a knife between the supra-occipital, to separate one segment between the supra occipital and the parietals, and, putting a knife again between the parietals and frontals, to separate another, and thus to obtain three perfectly distinct osseous segments. It was that which Oken saw in the bleached deer's skull; it was that which very naturally, and as I think very consistently, led him to say (he says the conviction came across him as a lightning flash) that this great skull, which contains the diluted continuation of the spinal marrow, is itself nothing more than a diluted continuation of the vertebral column. In his first essay he is guided entirely by the analogy of the sheep's cranium, and he says that the hindermost vertebra, which he calls the ear vertebra, is composed of the basilar portion of the occipital bones and the two ex-occipitals—the two auricular portions, and the supra-occipital; that the next segment is formed by the posterior sphenoid, by the great alæ of the sphenoid, and by the parietals; and that the anterior segment is formed by the pre-sphenoid, by the little orbito-sphenoids, and by the frontals. Use the term segments, leaving the doubtful term vertebræ out of place, and there cannot be a doubt that Oken was perfectly justified, and that the fact will remain as he stated it to be for all time, as one which you can always demonstrate in the osseous skull. Then he goes on to say that there is an anterior portion, consisting of the ethmoid, the nasals, and the vomer, and that you can take that away. He is somewhat doubtful as to what is the nature of this; but, at any rate, he suggests as a possibility that the vomer may be in reality the continuation forward of the vertebral axis formed by the pre-sphenoid, the basi-sphenoid, and the basi-occipital; and that perhaps it may represent two or three vertebræ coalesced. He appears to be misled by some statement on this subject by an anatomical writer; but that point he leaves open. At first he stands simply by the three cranial vertebræ, as he calls them. He says: "You may think, perhaps, that I have forgotten the petrosal bone. Not at all. This petrosal bone is not a vertebra; it contains no parts of one of its vertebral components of the skull; but it is a sensory organ; it is an ossification developed around the

organ of hearing which characterizes the formation of that organ, in just the same way as the membranous case around the eye is peculiar to that organ. Therefore you must regard this as something apart from the segments of the vertebræ, and look upon it as a sense capsule—not considering it as entering into the composition of the skull at all." Having arrived at this notion of the resemblance of the upper arches of the skull to the cavity of the upper arches of the vertebræ in the trunk the next step was a very simple and very obvious one. Finding in the skull, so far, a perfect resemblance to the vertebral column, Oken, not unnaturally, arrived at the conclusion that the lower arches of the skull—the parts of the face—must answer in some way or other to the parts of the trunk; and carrying out that idea with the boldness which was characteristic of him—indeed, I might almost have said with the rashness which certainly characterized the majority of his later speculations—he said: "If I find the repetition of this upper part of the vertebral column in the skull, I must also find a repetition of the lower part; and as I find there a thorax and abdomen, so I must find a thorax and abdomen in the skull"; and he said that the thorax of the skull was formed by the palatine bones and the adjoining parts, and that the abdomen of the skull was formed by the oral cavity. The idea is not so far-fetched as you might at first imagine. There is the same sort of *à priori* probability about it that there is about the identification of the upper arches of the skull with the upper arches of the vertebral column. By this time the notion of identity of composition as he progressed appears to have taken full possession of his mind, and he said to himself, "If we can find the upper and lower arches of the trunk in the head, we ought to be able to find the limbs." And totally undeterred by the difficulties which would have suggested themselves to a man of less daring in this matter—and those difficulties which, as I believe, kept Gœthe from promulgating his doctrine—he said: "I will find all these parts. There is the shoulder-blade of the head in the squamosal bone; there is the arm of the head in the jugal apparatus; and there is the hand of the head in the upper maxilla; and there are the fingers of the head in the teeth; and there is the thumb of the head in the pre-maxilla." If you had asked Oken how he knew that these were the fingers and thumbs, and so forth, he would probably have been puzzled for an answer. He would have told you that the idea dominated over all these things, and that that great perception of an archetype, which was

perceived perhaps only by the man of genius, could not be seen by inferior people who were simply looking at the facts; and he said, therefore, that the arm of the head was attached to the side of the head, fixed to it, and that the two hands of the head were, so to speak, expanded to the sides of the nasal capsule. Where, then, were the legs of the head? Nothing daunted, Oken said that they were to be found in the lower jaw, and that the teeth of the lower jaw were the toes of the head in the same way, and that the hyoidean apparatus was nothing more nor less than the pelvis of the head. One would have thought that the difficulty of finding two legs of the head attached to scapulæ of the head here was rather a strong one; but Oken has an answer for all these matters. It is not worth while to enter into them largely now, having other things to attend to. It does not seem to have entered his mind that for anything like scientific speculation you must have a criterion of the truth or falsehood of what you say, and that unless you have some such criterion, you can go on inventing theories and counter-theories until Doomsday, every one of which shall be just as good as every other. A few years afterwards, Oken enlarged his idea by regarding the nasal apparatus as a fourth vertebra, and thus arose that view of the skull as composed of four coalesced vertebræ, which has formed, without any considerable or material alteration, the basis of every speculation that has been published since. In this way Oken founded a school. His ideas were received with open arms in Germany, and his contemporaries, some of them, carried to a wonderful pitch the wildnesses—I had almost used a stronger word—with which the ingenious speculations of Oken are, to a vast extent, mixed. These, like Spix, for example, propounded the most extraordinary notions of the composition of the skull—notions which one must acquaint oneself with as a matter of history; but when one has done that, the best thing to do is to forget them, and to think of them no more. Others, more judicious, more accurate in thought, like Bojanus, enlarged the doctrine in other directions; but altered nothing, added nothing whatsoever to the method of Oken, but simply shifted backwards and forwards the lines of interpretation which he had suggested. By degrees the notion spread in France, or rather I should say that it had an independent origin there to a certain extent, partly depending upon an interchange of ideas with Germany, partly arising as the result of the development of notions which Geoffrey St. Hilaire propounded in France upon the unity of organization, and so forth. Thus further mod-

ifications were produced, some admitting three vertebræ, some making out that there were four, some that there were six, and some that there were seven; but the character of the reasoning and the method of the interpretation were not one whit changed from that which was invented by Oken.

In England, again, we have had our own propounders of similar theories. I do not know that anything which I have said about Geoffrey St. Hilaire and about the Germans does not equally apply to them. I am quite at a loss to find in our English speculations any advance whatsoever upon the method, or in the main upon the facts, of Oken. If it is absurd, without good evidence, to talk of the jugal apparatus and the squamosal apparatus, and the upper jaw, as being the arm of the head, it is at least as absurd, without equally good evi dence, and upon mere fantastical grounds, to regard the arm as a rib of the head. The one notion has exactly the same value and scientific standing as the other, and if the transpositions of Oken shock the mind, not less do those who are accustomed to the study and careful interpretations which result from embryology feel astounded in having to believe that the appendage of the atlas has, somehow or other, got in front of the rib of the occipital bone, and thus given rise to the position of the parts as we find them. My business, however, is not to enter into a criticism of these theories, but simply to show what is their scientific position.

In France, however, and in England, there have been great exceptions to these mere blind developments of the notions of Oken. In France the enormous knowledge and accurate thought of Cuvier kept him from drifting into such conceptions. He admitted, as all must admit, that there was a segmentation of the skull; but the moment these notions of the vertebration of the skull were proposed, he said, "I want evidence; I want a criterion. It is of no use talking to me about the relative repetitions, shifting backwards and forwards and all the rest. I want something which shall prove to me that these processes really do take place, or I will not accept your interpretation." Therefore Cuvier always held aloof from the vertebral doctrine, and I confess for myself I fully sympathize with those occasionally somewhat bitter sarcasms with which he overwhelmed the advocates of those notions, pernicious to everything like accuracy of thought, in his "Ossemens Fossiles," and his "Histoire Naturelle des Poissons." In this country, again, there has been another exception. I allude to Professor Goodsir, of Edinburgh, and the able young men

who have risen from his training. He is the only man, so far as I know, either on the Continent or here, who has understood the value of that which took place between 1837 and 1840, or thereabouts, in Germany (of which I shall have to speak presently), and has endeavored to correct the errors of the merely Okenian line of speculation by the severe criteria of embryology. What was it, then, that took place between those years, 1837 to 1840, in Germany. It was a revolution in method—it was the discovery of that criterion for the want of which this wild and waste method of speculation upon the nature of the skull had originated. At about the period to which we refer, Reichert and Rathke, two men whose names must always be mentioned with the profoundest respect in connection with the skull, commenced their embryological researches, and instead of confining themselves to the easy task of sitting in their chairs and speculating backwards and forwards as to how the bones of the skull should be fitted together, like a child's puzzle, they set to work to ascertain how they had really come, and by the most laborious and difficult studies of development, to see in what manner the complex adult skull had arisen from its early state, and how, by tracing back the methods of development, by tracing back every skull to that early condition in which it resembles every other skull, you are able to identify the precise places at which each bone arose, and so to eliminate from your mind the mystifying influences of subsequent change. These men—Reichert, by his discovery of the visceral arches, and by his wonderful study of their modification; Rathke, by his investigations in comparative embryology, and his still more remarkable discoveries, as I think, into the true nature of the base of the skull, and the mode of its production—these men founded an absolutely new epoch and a new method; and for me any work which has been published since that time, and which contains no reference to the labors of these men, and ignores them, is on exactly the same scientific footing as a treatise on astronomy written at the present day which should ignore the discoveries of Newton; it is an anachronism, has no scientific place, and is unworthy of consideration.—*London Lancet.*

RETREAT FOR INTEMPERATE WOMEN.

The subject of the following communication is one the importance of which can hardly be exaggerated. The unfortunate victims of the vice to which it refers are among the most pitiable objects to which our professional sympathies are ever directed. The experience of nearly every physician must have furnished him with cases of this kind of the most embarrassing character. Household restraints and home influence are little better than worthless in these cases, and the prospect of an asylum where they can be received and tenderly cared for will bring an indescribable relief to many. We have no means of knowing how extensive a provision is required for the purpose in our own State, but we hail the commencement of this movement with the greatest satisfaction, and hope it may meet with the signal success which it deserves.

Retreat for Intemperate Women.—The necessity of making some special provision for the victims of intemperance, partly for the benefit of the individual and partly for that of the community, is beginning to attract general attention, and the subject in its various bearings has been brought before the Massachusetts State Board of Commissioners on Insanity, as among the matters deserving their serious consideration.

Aside from the question of establishing a public asylum for inebriates, the advantages of which would be more naturally confined to the middle and lower classes, it appears that there is yet in New England no place of refuge for intemperate women of good social position except the public and private lunatic asylums, which are unfitted, in the almost unanimous opinion of their superintendents, for the reception of such cases; at many asylums, indeed, admittance being refused to them, alike in justice to the other patients and to the inebriates themselves. The number of applications at the New York General Asylum at Binghamton far exceeds the possible capacity of the building, while the Washingtonian Home in Boston, whose influence for good is already so extended, is for men alone.

In accordance with this apparent want, arrangements have been made by which there will be afforded to a limited number of self-indulgent women, whether addicted to opiates or stimulants, the necessary elements for their cure; namely, voluntary seclusion from temptation, the strictest privacy if desired, a location in the immediate vicinity of the city, and yet unrivalled for purity of atmosphere and beauty of scenery The house selected for the purpose is one constructed with especial reference to a comfortable residence during the winter; attendants will be provided of unexceptionable character, and but few patients will at present be received. For further information application may be made to the Secretary of the Commission, Dr. H. R. Storer, at Hotel Pelham, Boston; the other members of the Board being Hon. Josiah Quincy, Jr., of Boston, and Dr. Alfred Hitchcock, of the Governor's Council, of Fitchburg. It may be stated that the step now taken has the cordial approval and endorsement of His Excellency Governor Andrew, Judge Hoar of the Supreme Court, Drs. James Jackson, Jacob Bigelow, John Jeffries, H. I. Bowditch, J. Mason Warren, Tyler of the Asylum at Somerville, Jarvis of Dorchester, and others of our more prominent citizens.—*Boston Medical and Surgical Journal.*

ORIGINAL COMMUNICATIONS.

CLINICAL LECTURES ON DISEASES OF THE EYE.

By E. L. HOLMES, M. D., of Chicago,

Lecturer on Diseases of the Eye and Ear in Rush Medical College, and Surgeon of the Chicago Charitable Eye and Ear Infirmary.

The Conjunctiva,—Anatomy, Physiology, and Pathology.

Gentlemen:—We have before us to-day several cases, presenting different abnormal conditions of the Conjunctiva. I wish to urge upon you a careful study, not only of these cases but especially, of the whole subject of conjunctival inflamma-

tion. If not the most interesting, it is practically the most important part of our course, since, in the West, the number of cases of conjunctival inflammation and its sequelæ is far larger than the aggregate number of cases of all other diseases of the eye, which you will meet in practice.

I am convinced more patients become blind from the effects of these diseases than from all other causes. It would be difficult to estimate the physical distress endured for weeks and months by thousands of patients, afflicted with ordinary "sore eyes," in the Northwestern States. No one, except those brought in frequent contact with this class of patients, can imagine their mental sufferings in view of their own dismal prospects for the future, and of the sad condition of their families deprived of their support and care. Parents, thus suffering, are often forced to leave their children without moral and mental culture, and without restraint, and with evil habits such as idleness and ignorance always bring. Children in large numbers with diseases of the eye, neglected or improperly treated, have been left blind for life, or with so little vision as to be unfit for the ordinary duties of life.

Few diseases in the West are so universally considered of little significance, and yet become the cause of so much misery as those of which we are now speaking. The thought, that upon you will hereafter devolve the responsibility of treating such cases, will lead you, I hope, to study this subject faithfully. That you may the better understand the progress and treatment of these diseases, I shall first call your attention to a few points regarding the Anatomy, Physiology and abnormal conditions of the Conjunctiva.

If you dissect this membrane from the eye-lids and from the globe, you will have a circular piece of tissue, about two and a half inches in diameter, with an opening near the center, corresponding to the cornea. The Conjunctiva resembles, in its general structure, the other mucous membranes of the body. It is composed principally of fusiform and star-shaped cells and areola tissue. These cells are furnished with exceed-

ingly minute tube-like appendices, which anastomose freely with those of other cells. The epithelium consists of a deeper layer of elongated cells, covered with a delicate layer of flat, hexagonal cells.

There are three distinct portions of this membrane, differing from each other not only in position, but in structure. The first portion, covering the cartilages of the lids, is composed of an epithelial layer and a firm areola tissue; it is provided with large numbers of papillæ, which give it under the microscope its peculiar velvety appearance. The second portion, the duplicature, comprises the loose folds, varying in extent in different individuals, which lie between the points where the Conjunctiva leaves the lids and joins the globe. It contains few papillæ but very large numbers of mucous glandulæ, somewhat resembling minute bunches of grapes. The semilunar fold at the inner angle of the eye is of the same structure as this portion of the Conjunctiva.

The third portion covers the anterior part of the sclerotica. It is transparent, less firm and thick than the palpebral portion, and has neither papillæ nor mucous glandulæ. Its epithelial layer extends over the cornea. The annular portion of the sclerotical conjunctiva, which encroaches upon the cornea, and which can be seen as a transparent ring at the circumference of the cornea, is called the limbus conjunctivæ. Between the sclerotica and conjunctiva is a thin layer of submucous areola tissue called the capsule of Tenon, the anatomy of which is of some little importance in operating for strabismus and in removing the eye.

The vessels which supply the Conjunctiva with blood are branches of the ophthalmic artery and the facial branches of the external carotid. The vessels of the sclerotic portion of the Conjunctiva are scarcely visible to the naked eye. The larger vessels, seen in this portion of the eye, belong really to the submucous tissue.

Branches of the fifth pair of nerves are very freely distributed to the palpebral portion of the Conjunctiva. The folds

between the lids and globe possess comparatively little sensibility. The intimate relation of these nerves with the nerves regulating the motions, secretions and other functions of the eye, is shown by the manner in which irritation of the mucous membrane will produce a flow of tears, involuntary motions of the facial muscles, and closing of the lids.

The Conjunctiva undoubtedly furnishes the largest portion of the lubricating fluid, by which the movements of the lids and globe are facilitated. That the lachrymal gland contributes but a small part of this fluid may be shown by the fact, that the extirpation of the gland does not diminish the ordinary amount of moisture of the Conjunctiva.

In treating of conjunctivitis I shall at present confine my remarks principally to those forms, of it which you will most frequently meet in practice, viz.: the catarrhal, muco-purulent, purulent and scrofulous. But before we enter upon the study of these varieties of disease, it will be well to consider generally the progress and effects of inflammation in the Conjunctiva.

The inflammatory action, however produced, seems to commence first in the spindle and star-shaped cells, and in the deeper cells of the epithelium. These cells take on an increased activity, becoming enlarged and filled with granules and serum-like fluid; as the process continues, the minute appendius of these cells also become enlarged and filled in the same manner. As a result of these changes there is an increased rapidity in the formation of new cells not only in the substance of the mucous membrane, but also in the epithelium. Accompanying this increased formation of cells, there is a congestion of the vessels and an infiltration of lymph into the tissues of the Conjunctiva, in consequence of which there is more or less swelling, which often extends to the whole substance of the lids. In proportion to the intensity of the inflammation there is a greater or less amount of secretion, composed of mucous and pus mingled with the other fluids of the eye. The relative quantity of pus and mucous depends upon the intensity,

and possibly upon the character, of the inflammation, as in a case of mild muco-purulent conjunctivitis in which there may be scarcely a trace of pus in the discharge: or in a case of purulent inflammation in which the discharge is composed almost wholly of pus.

An inflammation of the Conjunctiva even in its severest forms may terminate in resolution and leave the eye in perfect health, or it may run a rapid course terminating in the destruction of important tissues, with vision to a greater or less extent impaired. It is curious to observe the differences in the effects of an inflammation in different cases, apparently analogous. As for instance, you may examine a neglected case of purulent conjunctivitis in an infant, in which you find sloughing of the cornea a week after the attack; in another case, apparently precisely similar, you may find the cornea uninjured, even though the disease may have existed nearly a month.

One of the most frequent unfavorable results of conjunctivitis is atrophy. The infiltration of lymph into the substance of the conjunctiva produces pressure upon the nerves, vessels, glandulæ, and disarranges the process of nutrition. Finally, as the products of inflammation become absorbed the Conjunctiva remains not only atrophied but also changed as regards the character of its tissues. Occasionally, as in the very remarkable case we have seen in the Clinic to-day, the Conjunctiva is not only so much atrophied as to pass direct from the edges of the lids to the globe, but is also transformed to a perfectly translucent, parchment-like membrane, covering the cornea. All the secretions of the eye are arrested, and the surface of the globe is perfectly dry. The finger rubbed upon the cornea produces no irritation. In other cases the atrophy occurs without so great transformation of structure. The functions may not be excessively deranged and yet the lids appear narrower and shorter than natural. In some cases the meibomian glands and the follicles of the cilia are destroyed; in others the roots of the cilia are displaced by the absorption of

the surrounding tissues ; in consequence of which, the cilia grow in an abnormal direction towards the globe, causing much discomfort to the patient, as in Trichiasis. Sometimes where there is great relaxation of the external tissues with contraction of the Conjunctiva, the whole lid is turned in, bringing all the cilia in contact with the globe. This condition is called Entropion.

Occasionally in this country—much more frequently in Europe I have reason to believe—there is formed, as a product of inflammation, a false membrane upon the surface of the Conjunctiva, especially of the lids. This exudation may be simply attached to the surface, or it may also be formed in the substance and upon the surface of the Conjunctiva as in the case of true diphtheritic conjunctivitis.

Before atrophy occurs, as just described, there is very often hypertrophy of the Conjunctiva, especially of the folds, lying between the lids and the globe, and of the plica-semilunaris. While this condition exists, the Conjunctiva, except upon the globe, is covered with elevations, composed of cells and a jelly-like exudation. This condition is termed Trachoma—or in common language, "granulated lids." On the lids these "granulations," according to some writers, are simply hypertrophied papilla ; at the duplicature of the Conjunctiva, they are composed principally of jelly-like granules.

The processes, as above described, are liable to be influenced by other diseases of the system, as is often observed in cases of scrofulous diathesis, of small pox, measles and other eruptive diseases. Phlyctenular conjunctivitis—Herpes conjunctivæ—is seldom found except in patients suffering more or less from strumous diathesis. The small elevations upon the Conjunctiva peculiar to these complications, seem to be produced in nearly the same manner as the "granulations" above described. The inflammation appears at first to be confined to small circumscribed points, where by the increased formation of cells and exudation of lymph, small elevations are formed. These elevated points often ulcerate, leaving an ir-

ritable surface, from which the inflammation extends to other parts of the Conjunctiva and cornea, with the same results as in other forms of conjunctivitis.

These few explanatory remarks will enable you, I trust, to understand even by simple inspection, what processes have produced the abnormal changes, you will observe in very many cases to be brought before you this winter.

PYÆMIA, OR LEUKÆMIA.

By GEO. R. WEEKS, Surgeon of U. S. V.,
In Charge of Church Hospital.

Church U. S. Military Hospital, Memphis, Tenn., Sept. 8th, 1863.

Having recently been much interested in various pathologi cal conditions resulting in Pyæmia, Leukæmia, or Leucocythæmia, and believing that I have observed some facts of interest in this disease, I submit the following observations, taken at the bedside, with a view of calling attention to the true nature and conditions found in those affected by this particular grade of action. If I can be able to contribute in the least degree to this end, I shall feel myself amply rewarded. I believe it closely allied to *Hospital Gangrene*, and blood poisoning, and generally has appeared to be the sequence of these diseases.

The ideas that I shall present were taken from the observation and treatment of *one hundred and seventy-five* cases of Hospital Gangrene, one hundred and fifteen of which were observed and reported on by me, in Louisville, Ky. Six occurred in the 17th Army Corps Hospital, at Vicksburg, Miss., of which I had charge, and fifty-four at this Hospital, during the month of August, with what results will be shown by the following table.

Summary of Cases Treated by Bromine, Locally, and Their Results,

No. Treated.	No. Recovered.	Died.	Died of						Flesh Wounds.	Flesh Wounds, Bone Involved.	Average time of Arrest.
			Gangrene.	Pyæmia.	Thrombus & Sepsis of the Blood.	Mechanical Pneumonia.	Cellulitis.	Diarrhœa.			Days.
146	134	12		3	5	2	1	1	104	42	4.26
Summary of Cases Treated Without Bromine, and Their Result.											
29	20	9	4	3	1	1			24	5	18.8

Fifty-three of these were treated locally by pure bromine, and the average time of arrest was 1.92 days, seldom requiring a second application. Ninety-three were treated by comp. bals. of bromine, average time being 8.66 days; and twenty-nine cases were treated by the usual methods, the average time of arrest was 18.8 days. All had the same constitutional treatment, and were alike situated in other respects.

The facts noticed during the treatment of these cases point to the following views with regard to its pathology. That Hospital Gangrene is produced by a *specific animal poison*, and that it only enters the system by inoculation upon a traumatic surface. That for a variable time after it is deposited upon or in the sore, it is local in character, after which it enters the blood through the agency of the absorbent system, and changes its constituents both vitally and chemically. I have designated this the stage of Toxæmia, in which the blood is morphologically changed, the result being thrombus, which in my opinion, is the plastic portion of the blood, aggregated and semi-organized, necessarily rendering the remainder aplastic and of little use to the economy in the work of repair. I have many morbid specimens now in my possession, that clearly establish the truth of these propositions, in illustration of which allow me to cite a few cases.

Adam Brangle, a private of 1st U. S. Inft'y, was brought to the 17th Army Corps Hospital, at Vicksburg, Miss., with gangrene of stump of right arm, which had been amputated several days previous to his admission. Upon examining him, I

diagnosed Mechanical Pneumonia, of right lung. He complained of pain in the heart, and over lower lobe of right lung, which then gave a flat sound, with dulness extending upward and with entire loss of vesicular resonance. No crepitus was heard in the part or above it.

I treated the arm locally, with pure bromine, which arrested the gangrene promptly, and the sore continued to granulate feebly until near death. The pulmonary difficulty continued upward until the entire right lung was involved and half of the left, when he died. I examined him carefully, and noticed his symptoms three times a day, myself, during the time he was under my care, being much interested in his condition. Autopsy twelve hours after death. The right lung was very much enlarged, and so heavy that it readily sank in water, so large that it filled the right side of the thorax entirely. Upon section it presented innumerable dark colored points of all sizes, which were traced back to where they could unmistakably be seen to be in the pulmonary artery. I hazard little by saying that very nearly all the vessels in the right lung were occluded by thrombi. Also a portion of the left was in the same condition, and in none of them was there any signs of a retrograde movement, or softening. This was a rapid case, and one that finely illustrates the mode of dying, which was undoubtedly from obstruction of a purely mechanical nature, so far as the lungs were concerned, producing an excess of carbonic acid in the blood, and a deficiency of oxygen from pressure on the vesicles and obliteration of air space. This is the first stage, or one necessary link in the pyæmic process.

2nd. James A. Beaver, private, co. A, 33d Iowa Infty Vol., was admitted to this Hospital July 30th, 1863, with gangrene of the ankle, involving the ankle joint and instep. I examined him August 8th, and diagnosed thrombus and septic poisoning. I made an unfavorable prognosis. Gangrene had been present since July 17th, and was promptly arrested by the use of bromine, locally, August 12th, but no repair was established. The wound kept clean and had no fœtor. He died August 18th. Autopsy ten hours after death.

The pulmonary vessels were filled with a dark colored, semi-fluid substance, and at points portions of unsoftened thrombi yet remained. In some of the larger vessels thrombus was still entire, in others, where the pressure was greatest, softening had commenced. Softening was also observed in the parenchyma, always most advanced in that part nearest the vessel. I found a large thrombus in the left side of the heart, more than half of it softened, and softening of the walls of the heart, with which it came in contact. It looked of a purple color, and had a gangrenous odor, and was easily broken down between the thumb and finger upon moderate pressure. I take it that this case points to the transition stage from thrombus to true pyæmia, and marks the process quite clearly.

Death perhaps was produced by ichoræmia, depraved or perverted nutrition, caused by the septic condition of the blood, the morbid element of which was indebted to softened thrombi, and the product returned to the general circulation rendered it more poisonous.

3d. J. H. Sutton, private, co. I, 36th Ind. Infty Vol., passed through both the above mentioned stages, and died of the next or of true pyæmia. Metastatic abscesses were formed in the lower lobe of right lung, of all sizes from a millet seed to that of a walnut, and also thrombi, entire and softening, forming new centres for abscesses. The man had been sick a long time, and had gangrene in popliteal space, which had been arrested previous to death some considerable time, but not in time to prevent ichoræmia.

I cite these three cases as marking the stages leading to the state of pyæmia distinctly and clearly. I have endeavored to present the facts as I have observed them, and let the results follow. Post-mortem appearances are nature's teachings, before whose power our most subtile theories and ingenious hypotheses must bow in humble submission. I have examined all that died, in every one of which I have found thrombus in the heart and lungs, in some of the stages before mentioned, in consequence of which I am inclined to look upon them as

a necessary condition. I am fully persuaded that Virchow is right in calling it leukæmia, as I shall endeavor to prove hereafter. These remarks are not only true of gangrene, but are equally so of all that class of diseases arising from blood-poisoning, in which also ichoræmia secondarily plays an important part. I am not sure but that it will enable us to explain all the phenomena presented. The accompanying symptoms are very analogous to those arising from the bite of a venomous serpent, and perhaps what will cure one will arrest the other. I said in the commencement that, primarily, I believe it to be local, and that it passed into the blood by the agency of the absorbents, when toxæmia was produced; but how is this brought about? In what manner are these changes produced? I answer, 1st, By contact of the morbid agent with the traumatic surface. 2d, Transformation of cell contents, which I am inclined to believe is the result of oxydation. 3d, Absorption of the ichorous product, which causes a retrograde movement in the part and also in the constituents of the blood, which I think is chemico-vital in character. The corpuscular change is quite apparent by the aid of the microscope. The red corpuscle loses its hæmatine, which becoming granular, is deposited in a circle, and aggregated around the outside of the field. The white corpuscles are very abundant and occupy the whole surface. Chrystals of ammoniacal salts are formed in abundance, and an occasional fungi may be seen. Virchow teaches that it is not possible for substances, or rather particles of matter to pass through the lymphatic glands, as in the case of cinnabar and tattooing, they are arrested and detained there. I cannot say how it is accomplished, but of the fact that the morbific agent does pass the glands, I am well satisfied, and as these are the last row of sentinels to contend against, I can see no reason why it should not proceed onward to the blood. I have a case in point.

James Scott, private, co. A, 1st Mo., died at this Hospital, on Sept. 3d, in whose thoracic duct I found a well-developed thrombus. I sent it to Surgeon Brinton, U. S. V., Washing-

ton. It was about four inches long, and largest in that portion that occupied the receptaculum chyli. It is the first case that I have ever seen or heard of. The glands were enlarged, indurated, and of a dark color, as if filled with pigment granules, which I very much suspect they were. The ichor undoubtedly had passed, as its effects were demonstrated by thrombus in the duct. If so the whole process corresponds very nearly to Virchow's idea of their function. This case conclusively presents three very important facts, viz.: That the poison, whatever it is, passes through the lymphatic gland; that it is capable of producing thrombus upon the other side, and that the morbid element does not reside in the pigment but in its ichor. I am of the opinion that this settles a vital point in the pathology of leukæmia.

The death of the parts afflicted by gangrene is a molecular one, and I believe should occupy an intermediate position between ulceration and mortification. It is always accompanied by asthenia.

Of the cases observed here during the month, the average temperature of the body was 89° Fahrenheit, and the number of pulsations were 101, which significantly pointed to the manner in which they die, and to the indications for treatment. In he formation of thrombus I have invariably found them of the shape of the vessels, upon the right side, and globular upon the left, and in the latter seldom extending into the vessels. I have one of the left auricle now, weighing 482 grains, and one of the right side, representing every branch of the pulmonary artery, which had its attachment to the right ventricle.

It will be inferred from what I have said previously, that I regard the disease as curable, before its consequences are constitutionally developed. This is exactly what I at present believe. I can see no reasonable prospect of reaching it afterwards and would not know how to make a rational prescription, with my present views of its pathology, other than support. Upon the appearance of thrombus in the *heart* and

lungs, which is easily detected by the physical signs, hope with me ceases. Some may recover but I have not seen them. The rational remedies indicated I believe to be, oxygen, fluorine, chlorine, bromine, etc. I expect much from the judicious application of the former, and shall try it as soon as opportunity offers. Fluorine is too dangerous. Chlorine can only be obtained in a fluid state, under great pressure, or in the form of mechanical mixture, hence the selection of bromine, which is in the best form, and easiest of application, and over which condition I believe it to have a specific influence. I am of the opinion that it will arrest gangrene wherever it can be brought in contact with all the pulp or pultaceous matter. This is very difficult to do in the burrowing form of the disease, and also from the nature of some wounds, it is nearly impossible to reach every part with the remedy.

I have been industriously seeking an agent that would destroy the poison in the blood, or counteract its effects, but up to the present time have found none. I first tried the hyposulphites, then bromine by inhalation, and then internally. I have observed no beneficial effects from the hyposulphites, or the inhalation of bromine, but am inclined to believe that the internal administration of bromine, is of some value, how much I am unable yet to determine. I am now putting it to a severe test, in all the cases under my care, and noticing its effects closely with a view to settling this point. I am using the following formula: ℞. Bromine, Comp. Sol. of, ʒ ij; Aqua Distillata, ℥ ij; Syr. Simplex, ℥ ij; Mix. S. Teaspoonful every six hours.

I am favorably impressed with the remedy, but will not be able to speak with certainty until I have tried it for a longer period, and observed its effects more closely.

EDITORIAL AND MISCELLANEOUS.

The Principles and Practice of Ophthalmic Medicine and Surgery. By T. Wharton Jones, F. R. S., etc. With 117 illustrations. Third American Edition, with Additions. Philadelphia. Blanchard & Lea. Vol. 3. Scott, Keen & Co., Chicago.

This work of Mr. Jones has already been noticed in the *Journal*, and has become a standard, both in England and the United States. The present edition is somewhat improved from the last, and brought fully up to to the most recent views on the subject. It ought to be in the library of every physician who treats diseases of the eye. D. B.

Conservative Medicine as Applied to Hygiene.—Dr. Flint has favored the thinking portion of the medical profession with another of his trenchant articles on "Conservative Medicine"—those principles "which lead the practitioner in dealing with diseases to preserve, develop and support the vital powers." In his last essay, in the *Am. Med. Journal*, he considers these principles as applied to Hygiene, both in health and disease. We have only space for the salient points.

"To weaken the powers of life, or impair the constitutional strength, is never the design of measures to prevent disease."

There is no such condition as an "overplus of health."

Bleeding and purging as prophylactics have no warrant in modern science. Not even gestation warrants either of them.

Restricting the diet is equally repugnant to sound philosophy either prior to surgical operations or as prophylactic of contagious diseases. Zymotic diseases do not subvert this rule.

"Wear and tear" of the mental faculties, under it may be the stimulus of the most laudable ambition, notwithstanding the individual is regular in his habits, temperate and moral,

will beget disease, as witness tuberculosis, Bright's diseases, diabetes, etc. It is a dangerous egotism of the individual that he can bear an unlimited duration of work—mental or physical. The system will, sooner or later, break down under unremitted labor even though the powers are not seemingly at any one time overtaxed. It is a fallacy that mental and physical exertions counterbalance each other. The exhaustion incident to excessive mental labor is aggravated by the superaddition of muscular fatigue.

The evils of overfeeding, "gormandizing," are mental and moral rather than physical. The healthiest, ablest and best men and women have been good feeders. An excess of ingesta over the absolute wants of the economy is not necessarily an evil, there being provision made for the disposition of an overplus, but none against a deficiency of aliment. Generous living constitutes an important part of the curative management of very many diseases.

Hunger, appetite and taste are designed to govern dietetics. Watching anxiously the progress of digestion is extremely fallacious, and conduces to digestive disorder. The question to the physician: "What drugs shall I give to effect a cure?" is infinitely less important than that other: "What hygienic relations will contribute to the recovery of the patient?"

Disease does not stand in the way of patients from starvation. Deficiency of assimilation originates the symptomatic phenomena in acute diseases, to a greater or less extent, and is thus a greater or less source of danger.

It is a constant and important element. In chronic diseases it is a paramount element. The giving of about all medicines is to be guided by their influence upon the energy of the nutrient and assimilative processes. This is peculiarly true in all continued and "typhoid" fevers.

"Under all circumstances, a chronic affection is less likely to be prolonged, serious lesions of structure are less likely to take place, and a fatal termination is postponed in proportion as the vital powers are preserved." All hygienic measures are to be conjoined.

Air is a grand element of hygiene. "Free and daily exposure is important as a means of preserving the vigor of the body in health; may it not be equally important as a means of keeping up the vital powers in disease? Atmospherical vicissitudes, even in disease, there is reason to believe are hygienic. Prevailing apprehensions on the subject are much exaggerated. Mental conditions require careful management. The reciprocal agencies of mind and matter can scarcely be overrated. The resisting power to disease is largely mental as well as physical.

The emotions must be properly controlled by the physician.

Confidence and hope are wonderfully potent. Prof. Flint admits the clergy as subsidiary to the office of calming the patient's mind. He has evidently been more happy than we have in this respect. To us this is a *questio vexata* still.

Hospital arrangements are too often unfavorable to proper mental hygiene. All this is being corrected in the best managed and controlled institutions.

We look anxiously for Prof. Flint's promised work on Practice, as likely to supersede wholly the Empiritical treatises now in vogue.

Medical Logic. An Introductory Lecture to the Med. Dep. of the Univ. of Mich. Session 1863–4. By S. G. Armor, M. D., Prof. of Instit. of Med. and Mat. Med.

The unknown friend who forwarded to us this philosophical brochure has our sincere thanks. We congratulate Prof. Armor on both the sound logic and common sense of his lecture, and the fact that the Detroit Medical Society no longer exists to denounce him by resolution for the promulgation of the views he entertains on the points discussed.

The relics of that old organization ought certainly to have their professional bones stirred in their coffins by the conviction expressed by the learned lecturer, "that in no department of human inquiry is there so much *bad logic* as in the investigation of questions relating to Medical Science." Witness

this and lament, O Disembodied Spirit of the Detroit Medical Society!

We are all too apt to assume, as a postulate, that to be sick is to be visited by the Angel of Death; that the natural history of disease is death; that the warfare is therefore between *death* and *drugs*. With minds thus educated, *post hoc* is always *propter hoc;* and hence the quackery, the cures, the "specifics" which afflict our race. It is my firm conviction that if we could induce people to respect *Nature* more, and boastful pretenders of the healing art less, it would rid the world of a vast amount of bad logic. They would be prepared to reason from a new stand point; the fierce schisms of sects and schools would give way to Rational Medicine; we would have no occasion for another edition of Bigelow's "*Paradise of Doctors*," Nature and the Doctor would respectively occupy their true positions,—the one as the minister and handmaid of the other.

Again take this:

False and incompetent witnesses should be even more rigidly excluded from the Temple of Science than from our Temples of Justice. They invest error, for the time being, with all the power and majesty of Truth, and thus destroy the harmony which should ever exist between Truth and the highest development of our race.

By the term *evidence*, I mean to include, in a general sense, all the means by which any alleged matter of fact is established or disproved. In Medical Science, *facts*—not hypothesis—are what we are after, and this, as we shall see, is a striking characteristic of Rational Medicine as contra distinguished from all modern systems and theories. Facts, then, being the object of our research, and these being derived from others, as well as from our own observation, the importance of carefully considering the ground of our belief as based upon *reliable testimony*, becomes at once apparent. Nothing but a rigid adherence to the justly interpreted laws of evidence, will prevent us from being constantly led into error. But for the supremacy of induction, as the only reliable mode of discovering medical truth, Medical Science would forever grope her way in the dark. Induction begins with facts; deduction begins with ideas. By the former mode of reasoning, Medical Science has always made real and lasting progress; by the latter the most visionary one-idead systems have been established upon the most illogical, irrelevant, and inconclusive reasoning,—rules drawn from the most narrow and selfish views.

These errors in reasoning have their origin in the very nature anp constitution of the human mind. There is an inherent tendency to abstract and generalize, and our generalizations are too often hasty and immature.

The author avows himself an advocate of Rational Medicine.

It is mortifying to observe, in our own journals, the headlong haste with which, every day, some new remedy is taken into favor, eulogised and applauded as a catholicon for all the ills to which human flesh is heir, without caution, without selection, without discrimination, and without reference to the rules of a safe logical induction from reliable premises. All such observations, all such teachings and records, should be rigidly excluded, as unfit to form the basis of sound conclusions. * * * * * * * * * *

This is the glory of Rational medical science. It has no theory to maintain, no creed to enunciate. It follows *facts*, well observed, carefully studied, and based on a sufficiently wide range of observation, let them emanate from what source they may, or militate against whose theory they may. In this it differs from all other one-idead systems of practice, which are "based on an exclusive dogmita, to the rejection of the accumulated experience of the profession." Our science, let it ever be borne in mind, does not rest on abstract medical doctrines. Doctrines, as such, we have none; theories, none; no "system," as such, to maintain; no creed to follow. Rational medical science plants itself on the notation, arrangement and classification of facts. Hence, I affirm, its votaries work in the only true direction of a safe and rational progress. Where facts lead them, there they go, unmindful of any creed, or doctrine, or school. Rational medical science is unlimited in its resources. Untrammeled by the dogmas of schools or creeds, we boast of a science and art purely and truly *Eclectic*.

He has a want also for which the *debris* of the Society aforesaid should severely censure him by resolution:

What we want,—what medical science requires above all things, is manly independence of investigation, associated with a *rational skepticism in the reception of testimony*. Gœthe has an excellent aphorism defining that state of mind which he calls "Thatige Skepsis"—active doubt. "It is a doubt which so loves truth, that it neither dares rest in doubt, nor extenguish itself by unjustified belief." This concisely and clearly expresses the doctrine I have aimed to inculcate. Extreme skepticism and bigotry are alike inimical to the progress

of all true science. The one is too apt to reject; the other too slow to change: the one makes but little progress, because always lost in the wilderness of universal doubt; the other is incompetent to determine the fair and legitimate bearing of testimony, because obstinately and unreasonably wedded to particular dogmas, creeds and opinions- But an easy *credulity*, in matters of science, is even more objectionable than either. It believes all things—adopts the latest fashions—runs the rounds of empiricism—bleeds and purges to-day for everything, and to-morrow gives brandy and beef-steak;—abandons these extremes for steam, or pepper, or electricity, or sugar of milk potentialized by trituration, until the last and latest Vision, like the ideal hero of the Æneid, escapes in a cloud from the scene of action, and leaves its votary to seek for other aids and better lights to guide him.

Personally we do not know Prof. Armor—neverthelefs he excites our deepest anxiety. Fogyism is rampant in his present section, and we warn him that it will never do for him to there enunciate such "paradoxes and dogmas,' as are contained in the lecture before us. We look for yet another catastrophe at Ann Arbor. There are Dogberrys and Jack Cades all around him. Let him take our warning in time. Let Gunn load himself for another battle, and let both take Sager counsels. He may escape by Ford-ing, but the Palmer (*no* from the Holy Land,) and the Black Douglass will surely pursue him with the bloodhound beagles of the Regency.

A Case of Neuroma of the Optic Nerve, with Remarks and Illustrations. By John A. Lidell, M. D., Surg. U. S. Vol., Prof. Anat. Nat. Med. College. Second Edition. New York. 1863.

Our thanks are due the author for a copy of this very interesting pamphlet. It describes probably the only case on record of Neuroma of the Optic Nerve, and almost the only one involving a nerve of special sense. It should be borne in mind that not every tumor developed in connection with a nerve is properly neuroma.

We extract from the article a few remarks of a descriptive and diagnostic character regretting that our limits forbid in-

sertion of the details of the case in full, which was permanently cured by extirpation.

These nerve-tumors vary in size, from a pin-head to a melon. In shape they are regular, and either oval or elongated, their long axis always corresponding with the direction or course of the affected nerve. In structure, they are either cystic, which is the exceptional form, or cystico-solid, or entirely solid, (sarcomatous,) the latter being the common form. It is believed by some surgeons that, when the solid growth reaches a considerable size, one or more cysts, or cavities, filled with yellowish, brownish, or reddish-brown liquid, are apt to form in the inteaior, their formation being apparently due to a process of disintegration having commenced therein. Sometimes the tumor appears to be composed of concentric layers. In color, the interior structure varies from white or grayish-white, to a yellowish or reddish-yellow hue. In consistence, they vary from the denseness of fibrous tissue, and the hardness of cartilage, to the soft, fluctuating feel of a sero-cyst. With regard to mobility, *neuromata* are, for the most part, *distinctly movable in the direction of their transverse diameter*, but not in the direction of their long diameter, and this mobility is seldom or never destroyed by contracring adhesions to neighboring parts. Every effort to move these tumors in the course of their long diameter is productive of great pain. The skin investing these morbid growths is never discolored, and the cutaneous veins are never enlarged and tortuous, except the tumors have attained an unusual size; indeed, the integument in general is never affected by this disease in any other way than by mechanical pressure. These nerve-tumors are surrounded or invested with a distinct capsule formed from cellular tissue, condensed by the progressive expansion of the swelling, and it frequently happens that, within this covering, a second can readily be distinguished, formed by the expanded sheath of the parent nerve. *Neuromata never invade the contiguous parts by infiltrating them with their own peculiar substance, and thus impoeing on them their own peculiar structure.* They invade the neighboring parts only by mechanically pushing them away as they expand, and by slowly producing absorption of them from long-continued pressure. *Neuromata never infects the lymphatic glands*, neither in its own neighborhood nor in remote parts of the body, *and when properly excised it never returns.* In all these respects it differs widely from cancer, and is a disease entirely dissimilar thereto in its real character. Neuromatous tumors are commonly found single, though they

are occasionally multiple, and in very rare instances, according to the monograph already referred to, as many as several hundred are found in the same subject. The *painful subcutaneous tubercle*, three examples of which are referred to by Chesselden, is one of the most frequent forms of neuroma. Nerve-tumors, though commonly, are not always painful. The simple is much more liable to be painful than the multiple form of the disease. The pain, when present, has a peculiar character; the torture is agonizing, and the pain darts "along the trunk and branches of the nerve, with all the suddenness of an electric shock;" the pain is paroxysmal, and the exacerbations may be produced by pressing upon, handling or jarring the tumor, by strong mental emotion, by fatigue, and by changes in the hygrometrical condition of the atmosphere, disappearing in dry and clear, and coming on again in damp and cloudy weather. In respect to origin, neuroma is considered to be either spontaneous or traumatic; but whether spontaneous or traumatic, we are no nearer the truth with regard to the special perversion of the nutritive function, upon which the growth of such masses depends. Traumatic neuroma is most frequently seen in the stump of amputated limbs, and its treatment should be conducted on precisely the same principles as that of the spontaneous form of the disease.

Neuromata generally increase in size slowly and steadily. It is said that they never retrocede or disappear spontaneously. Medicines, whether applied locally, or taken internally, do not appear to possess the power to stop, or even to retard their growth materially. Expirpation affords the only certain cure, and extirpation by the knife, or excision, is preferable to that effected by any other method. Excision of a portion of the parent nerve, together with the tumor, has also been recommended, but I can not conceive that this procedure is often necessary. Sometimes, by the exercise of great care and skill, the tumor can be dissected away from the nerve with which it is in contact, without dividing said nerve, a feat which Velpeau accomplished in a case of neuroma sciatica. These tumors should not be excised, unless they are painful, or cause inconvenience to the patient by their size or weight.

* * * * * * * * *

Neuroma is distinguished from carcinoma by the following facts: 1. It never affects the surrounding parts otherwise than by pressure, whereas carcinoma involves the neighboring tissues by infiltrating them, and imposing on them its peculiar structure. 2. It never contaminates the neighboring lymphat-

ic ganglia: carcinoma does. 3. While it impairs the patient's general health by pain and distress, causing pallor, emaciation and debility, it never produces the true cancerous cachexy by specific infection of the system; carcinoma does produce such a result. 4. It does not return after excision; carcinoma does. 5. The pain of neuroma is neuralgic (electrical and paroxysmal) in character; the pain of carcinoma is not.*

Obituary Record.—It is with deep regret that we find in the *Boston Journal* the announcement of the death, by apoplexy, of our old friend Dr. Geo. Hayward. Dr. H. was one of the oldest and ablest surgeons of Boston, and a most hospitable, public-spirited, and high-minded gentleman. He was always foremost in aiding all useful objects, and his death will be a severe loss to the city of Boston and to the profession of this country.—*Med. News.*

Enterotomy.—Dr. Reali relates the following case: A countryman of limited capacity had introduced a piece of wood into the rectum, nine days before he applied to the Hospital of Orvieto, complaining of severe pain in the abdomen. On exploration the finger was able only just to reach the point of a piece of wood lying surrounded by the turgid mucous membrane in the direction of the hollow of the sacrum. Numerous attempts were made with various instruments to extract the foreign body without success, and, as the patient suffered greatly, an incision was made into the left iliac region. The finger having been introduced, it was found that the foreign body, having passed into the sigmoid flexure, the latter was distended, and forced to the mesial line, the body it contained rising as high as the navel. The intestinel was incised, and a truncated cone of chestnut wood (irregularly shaped, and measuring twenty-five centimetres in length, and from nine to ten in diameter) was removed. The wound in the intestine was closed by Jobert's procedure, and oily purgatives were administered. Great meteorism, entero-peritonitis, and an iliac abscess were among the sequelæ; but the patient recovered, and remained well when seen two years afterwards.—*Med. Times and Gaz.*

Strangury from Cantharides.—Dr. Amuille, of Paris, extols the method of treatment introduced by Dr. Mulock, of

*Vide Smith's monograph.

Dublin, for the cure of strangury from cantharides. This consists in giving liquor potassa, in doses of half a drachm, in gruel or flaxseed tea, every hour. Dr. A. says that he never finds more than two or three doses required to effect a cure.—*Med News.*

Mode of Preventing Injurious Action of Lead Pipes on Water.—The importance of discovering a really efficient means of preventing the injurious action of lead pipes on water is universally acknowledged, and the experiments of Dr. Crace Calvert have proved beyond question that no proposition hitherto brought forward has been calculated to remedy the evil complained of. A discovery, however, has now been made through which the water supplied by leaden pipes may be obtained by the consumer as pure as from the original source. Dr. H. Schwartz, of Breslau, has discovered a means by which the portion of the lead forming the interior surface of the pipe may be converted into an insoluble sulphide, the natural consequence being that the water passing through will be as free from contamination as if glass were used. The means by which Dr. Schwartz effects this conversion are extremely simple. He simply passes a strong solution of the sulphide of an alkali through the pipe to be acted upon, and the process is completed. This solution, which is either a sulphide of potassium or of sodium, is used at a temperature of about 212° F., and is allowed to act upon the metal for from ten to fifteen minutes. It is stated that, in practice, the boiling solution of caustic soda and sulphur is found to answer every purpose.—*Med. Times and Gaz.*, Sept. 26, 1863, from *Mining Journal.*

Sewage.—Sir Edward Bulwer Lytton made lately the following interesting remarks on this subject.—

"I remember, when I held the Colonial seal, the trouble and toil it cost me to secure from some distant islands a scanty supply of guano, while all the time, close at hand, a few of the London sewers were every year casting away into the Thames more than half a million's worth of a manure considerably more valuable for the general purposes of agriculture than that guano which ships were fitted out to bring home, in order that it might be retailed at a price which rather fits it for the phials of an apothecary than the fields of a farmer. I said half a million's worth of money was thus thrown away, but that is a very low estimate of the real waste. In Flanders,

for instance, where I have been lately, the value of sewage is calculated according to the numerical population, especially in towns. It is there calculated at £1 7*s.* a head yearly. In Belgium it is calculated at a still higher rate. So that, if the population of London be taken at 2,000,000, a means of increasing the productive wealth of the country (which, according to the estimate of Flanders, would be worth about £2,700,000) is exclusively devoted to poison the waters of the Thames, and administer gratuitous disease to her Majesty's metropolitan subjects. If we may condescend to take lessons from barbarians, the Chinese may in this respect be our teachers. The rapidity with which the Chinese bring almost any soil into cultivation, and, when bronght into cultivation, the enormous crops which they contrive to take from mere handfuls of land, have been the wonder and admiration of travelers. But the great secret of the Chinese is in the utilization of sewage. The proverbial fertility of Belgium is owing, in much, to the same cause. But it is not only the sewage of London which is wasted, but that of all our rural towns; although in them there appears a more impatient desire to remedy acknowledged abuses than seems to be the characteristic of city aldermen and metropolitan boards. When I consider how many populous towns there are in this country, I heartily wish we could send among them a few enlightened Chinese engineers to devise the best practical means by which our townsfolk might be enriched by the manure they could sell, and our farmers enriched by the manure they could buy. But in the meanwhile, until some such scheme is devised and agreed to, we must fall back on our friend the farm-yard dunghill, assisted indeed by various chemical manufactures, but never to such a degree as to supply its place. Professor Liebig is, no doubt, right in considering the chief art of productive husbandry to consist in the skilful application of manure. David Hume tells us, in one of his essays, that all the vast apparatus of our government has ultimately no other object or purpose than the distribution of justice, or, in other words, the support of the twelve judges. So it may be said that all the apparatus of productive husbandry has ultimately no other object or purpose than the distribution of justice to the soil—in other words, the application of that manure which gives back to the soil the nutriment we take from it, or supplies the nourishing properties which Nature had neglected to bestow. Eight hundred years ago there was a very learned dispute whether or not the earth was an animal. We have now discovered that

the earth is so far an animal that it requires to be fed, and will not bear to be starved. A remarkable instance of this truth is mentioned, by a celebrated agricultural authority, in some of the Southern States of America—such as Maryland and Virginia. In those States there were large districts of some of the most fertile lands in the world. The crops they yielded were prodigious, but, unluckily, the cultivators neglected the manure; they took from the land the alkalies and salts which they did not replace, and these districts have now become so hopelessly sterile that they have been altogether abandoned as a desert."—*Lancet*, Oct. 25, 1862.

Life in the Atmosphere.—James Samuelson, Esq., in a paper read before the British Association at their late meeting, remarked that no subject in natural history, except the allied one, the origin of species, had of late excited greater interest in the scientific world than the origin of the lowest types of living beings on the globe; and although the problem was far from being solved, yet the investigations that had accompanied the discussion had already served the useful purpose of throwing new light on the anatomy and life history of the mysterious little forms of which it treated. It was rather with the latter object, than in the expectation of being able to assist in the solution of the general question, that he ventured to lay before the association the results of investigations recently made. He had, for example, taken rags imported from various countries, and shaken the dust from them into distilled water, which he then exposed to the atmosphere; and, after describing generally the character of the living forms he had discovered in this pure water, he stated in detail the forms of life found in each kind of dust, and among these were some new species of Rhizopoda and Infusoria, and an interesting ciliated worm-shaped form, which he believed to be a collection of the larvæ of some other infusoria. The general results of the microscopical examination of these fluids between the 27th of July and 15th of August was as follows: In the dust of Egypt, Japan, Melbourne, and Trieste, life was the most abundant, and the development of the different forms was rapid. In conclusion, he observed that if he was correct in supposing the germs of the living forms that he had described to be present in the dust conveyed by the atmosphere, and in distilled water, it was worthy of notice that these germs retain vitality for a long period—a period of which he could not

pretend to define the limit. In his experiments they outlived the heat of a tropical sun, and the dryness of a warm room during the whole winter; but in Dr. Pouchet's case they retained their life 2,000 years, for he obtained his from the pyramids of Egypt, and then survived an oil of 400 degrees of heat. A main purpose which Mr. Samuelson had in view was to disprove the theory of spontaneous generation; and he suggested whether the great rapidity with which these germs are multiplied might not account for the spread of epidemic diseases. He did not profess to have any acquaintance with such diseases, but might it not be desirable to subject the atmosphere of hospitals to the microscopic test?—*Med. Times and Gaz.*, Oct. 3, 1863.

Obituary.—Charles P. Marsh, M. D., died at Kalamazoo, Mich., Nov. 17th, 1863, Æ. 35. Dr. Marsh graduated at the Med. Dep. of the Univ. of Mich. in the spring of 1851, and in the twelve years of his subsequent engagement in the practice of his profession, he had a variety and extent of experience which very rarely falls to the lot of a private practitioner. With his brother, Wells R. Marsh, M. D., now a Medical Director in the army, he was solicited, soon after graduating, to take the medical charge of the colony of Hollanders, established in the region of Black Lake, Ottawa Co., Mich., under the auspices of the Rev. A. C. VanRaalte. Some six thousand or more of these emigrants, mainly of the better class, were in a few months removed from the old country and located in the dense forests, as yet untouched by the axe, but which the far-seeing and sagacious pioneers saw contained all the elements of future prosperity.

Speedily mastering the language with great perfection, Dr. M., by his rare skill in diagnosis and great practical tact in treatment, combined with most untiring devotion to his duties and warmly sympathetic feelings, endeared himself most remarkably to the intelligent and industrious community among whom his lot was cast.

It is noteworthy that in his practice (and the whole burden soon fell upon him, in consequence of the appointment of his

brother as Professor in one of our prominent Western Colleges,) there was scarcely an operation in Surgery or Obstetrics which it did not fall to his lot to perform, often most unexpectedly, and with the crudest appliances. Genius supplied the place of delicate instruments and costly apparatus. He extemporized means, and success crowned his operations in the most striking degree. After several years of labors, under which the most iron constitution could not fail to succumb, his health failed, and a chronic diarrhœa supervening upon a severe course of Typhoid Fever, ultimately compelled him to abandon the field of his arduous practice.

Soon after this, although still suffering unner the effects of his disease, he became connected with the army, commencing his services on the memorable Sunday at Pittsburg Landing, afterwards upon the Hospital boat, City of Memphis, and then in connection with the 44th Ill. Infantry. In all these relations he acquitted himself with credit to himself and advantage to the service. No heart was more open to sympathy, no hand more firm in its work. No toil or watching dismayed him. Many a soldier's grateful prayers will throw a halo around his memory.

From these duties he was suddenly recalled to attend as it was supposed the last hours of a fondly beloved father. While the father however yet lives, the son has passed from earth, lamented by his humble friends the Holland emigrants as a dearly beloved benefactor; by those of our diseased and wounded soldiery who had had the benefit of his pains-taking, tireless skill, as a conscientious, self-sacrificing patriot; by those who knew him in private life as the genial companion, the amiable gentleman, the honest, noble-souled man. A constitution enfeebled by chronic, almost uncontrollable, disease, was broken wholly down in a few hours by *Pneumonia Typhoides.* After life's fitful fever he sleeps well. Peace to his ashes.

Hospital Gangrene, etc.—In the next No. of the Journal we shall notice at length the exceedingly interesting report to the Surgeon-General, of Prof. Middleton Goldsmith, Surgeon U. S. V., Louisville, Ky., on the use of Bromine, etc., in Hospital Gangrene, Erysipelas, and Pyæmia, as observed in the Depts. of the Ohio and Cumberland. We acknowledge its receipt with unmixed pleasure.

Our next No. will also contain an elaborate paper on the same subject, from an intelligent correspondent connected with the U. S. Hospitals in Memphis, Tenn.

The subject is one of peculiar importance and interest at the present time, and we welcome to our pages all earnest, thorough and clear-sighted examinations of the principles, facts and agencies involved.

Open Air Treatment of Phthisis.—Dr. Blake concludes another of his valuable treatises on the open air treatment of Phthisis:

Unfortunately but few localities afford facilities for fully carrying out this plan of treatment. Certainly in no other part of the globe can it be more readily tried than on this coast. For six months in the year we have a rainless climate, during the whole of which time our patients can live in the open air, under the most favorable hygienic conditions, and when the rainy season here would drive them into houses, a sea voyage of four or five days brings them to Northern Mexico, where, during the winter months they can enjoy a climate exactly analogous to our summer climate here, as in that country rain only falls between June and October. The intervening months are absolutely rainless. I have seen cases of consumption, in which a winter's residence there has been most beneficial, and I have a patient wintering there at present, who is reported as improving rapidly, although the disease had advanced to the third stage. When our patients are in a position to avail themselves of the advantages of the summer climate of California, and of the winter climate of Mexico, I believe there are few cases, except those in which the destruction of lung tissue is already too extensive, that cannot be cured. Many cases, both in the first and second stages, can be cured by merely passing

the summer out of doors in this country, but even in these, I believe wintering in Mexico would very much shorten the treatment. In all cases that have advanced to the third stage, wintering in Mexico should be recommended, as the treatment is much prolonged by the aggravation of the symptoms, during the time that the open air treatment has to be suspended. Every case, however, must be treated on its own merits; the time and means required for restoration to health, being more dependent on the general pathological and diathetic condition of the patient, than on the amount of change that has taken place in the lungs.

It is not my intention at present to enter on the questions of pathology and treatment which the above facts naturally suggest. This I hope to do on some future occasion. Their most important bearing I believe is, the support they bring to the views of those who place their chief reliance on the hygienic treatment of the disease. How striking a confirmation do these facts offer of the remark of Dr. Richardson, who, in his work on Consumption, observes:—

"In a cozy room the consumptive is bound never to live, nor in any room indeed, for any great length of time. So long as he is able to be out of doors, he is in his best and safest home. In the fields, on the hills, wherever the fresh air vivifies, where plants look most vigorous, and animals frisk about in the joy of health, there will the consumptive draw in his choicest medicine, there dissolve and throw off most freely the germs of his disease, and there repair most easily the tissues he has lost."

Received from the Publishers, by John R. Walsh, Elmir's Hand-Bood of Practice. This convenient pocket memorandum for practicing physicians is for sale by all our principal booksellers.

Errata.—Page 415—5th line from bottom, for Aqueduct read Viaduct.
Page 416—12th line from top, for Ecrassum read Ecraseur.
" " —14th line from bottom, for Paul Dubois read M. Depaul.
" 418—8th line from top, for Lithotomy read Lithotrity.

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